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- Chief Editor

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OBITUARY

We deeply mourn the sad demise of Professor D.Y. Deshpande which occurred at Nagpur on 31st December 2005 at the ripe age of 85. He was a stalwart amongst the senior living Philosophers of India. Literally active in his thought and action till he breathed his last, his life was, and is, an exemplary model of how one ought to dedicate to one's own discipline - in his case, philosophy, not only just to produce good students who would do well in exams but also to groom them into thinkers, scholars and philosophers who would later on face seriously and squarely philosophical issues of present times. He was an ardent votary of Vivekvād - Rationalism, not of a classical type, but of critical kind. For him, philosophy is critique, much more rigourous than that of Kant. It is argumentative basically and cannot be without using the instruments in logic. If Logic cannot help us to establish philosophical propositions, then nothing else can help.

Born on 27th July 1917, Prof. Deshpande was educated in a routine educational system prevailing then and had his both the degrees of B.A. and M.A. in Philosophy with flying colours from Morris College, Nagpur, winning gold medals at both. For two years (1941-43), he was Research Fellow of the Indian Institute of philosophy, Amalner. Except for the initial year, he spent his teaching career in the Govt. Education Service, ending up with Vidarbha Mahavidyalaya in Amaravati where he spent around 25 years and it was from there that he cast his wide network of academic influence all over the state of Maharashtra and a few parts of India where new University Departments were coming up. He recognised fast the need of developing philosophical discourses in both the languages -in English, for academic community in other states and in Marathi for students and scholars in the state of Maharashtra. He founded Indian Philosophical Association in 1949 to serve as a forum for discussions, debates and Seminars on national level. He worked as the Secretary of the Association for 40 years and then very reluctantly accepted its Presidentship for four years. In 1953, he launched a Journal of the Association which was published regularly for over 20 years. Very enthusistically he encouraged founding of Maharashtra Tattvajñāna Parishad for Marathi speaking people and guided its proceedings for 9 years from its inception as its President. This Association is carrying on his mission with zest and zeal. After formal retirement, he decided to cast his net on wider scale and started a monthly Journal in Marathi known as Navā Sudhāraka, presently titled as Ājachā Sudhāraka, which is dedicated reverentially to promote rational thinking on all sorts of problems met in all walks of life. As a Founder Editor he was keenly interested in developing it exclusively as a rational instrument- *a novum organon* of free expression of views on several current issues of vital importance for the growth of healthy democratic structure. The Journal addresses a very broad spectrum of regional, national and international issues. The role of a philosopher was seen in different perspective altogether by the late Prof. Deshpande.

He wrote very profusely both in Marathi and English. He has to his credit several published books, numerous Research papers and many philosophical writings of general interest. Ethics was his passion but one cannot overlook the place of reason and of logic he accords. While he was original in his approach, he will be long remembered for rendering translations in Marathi of a few vitally important works and papers by Western thinkers like Frege, Russell, Moore and Tarski. He sincerely felt the need of enriching the quarters of Marathi Literature by the original thinking of a few renowned Westerners who brought about revolutions in Philosophy during 20th century. He maintained that if intellectuals in Maharashtra have to give a lead, acquaintance with modern Western thought is a must. That alone will help us throw away the yoke of irrational tradition and blind faith in India.

As a person, he was extremely kind hearted and had an uncanny knack of maintaining cordiality in relations with all his friends and colleagues despite academic differences. Patience was his virtue and hard intellectual work, his calling. He never deviated from the path of righteousness, moral integrity and prudence.

In his passing away, we all have lost a dedicated scholar and thinker; and the *India Philosophical Quarterly*, a very sincere friend and well-wisher.

May his dedication inspire us to achieve the kingdom of *his* ends.

-EDITOR

STRUCTURAL ANALOGIES, ABSTRACTION AND MATHEMATICAL CONCEPTS IN VEDIC SCIENCES

RADHEY SHYAM KAUSHAL

1. Introduction

Each of us cannot be the man of perfection or the man of wisdom in spite of the fact that we all have the same set of faculites of understanding. This is mainly beacause the development of these faculties and the corresponding essences of life (1.2), even if the same conditions are provided, does not turn out to be the same for all of us. Keeping aside the reason for such an anomaly among human (and perhaps non human) beings here we concentrate on the tools of analogy used differently for different category of persons to impart the same knowledge. It is true that the 'ultimate' truth is pure and free from analogies and it finally becomes a matter of realization only but in the process of attaining the same analogies of different order (3) play an important role.

While the use of concept of analogy through metaphor, simile, examples etc. in soft disciplines (literature, humanities and social sciences) has been known since time immemorial, in recent years, the efforts have been made (3-8) to explore this concept in the context of hard disciplines like mathematics and objective sciences. An analogy is basically some kind of a mental construct which is useful in understanding the "unknown" in terms of the "known". Literally, the word "analogy" means similarity or parallelism. This parallelism, based on some sort of comparison, could be of objects alone or it could be of concepts behind them, or of the sequence of concepts, or of a description through a model or of the phenomenon as a whole. Further, analogies could be well within the same discipline or in different disciplines of knowledge. A study of an analogy with finer details or the contents and sub-contents constitute (3) a "structural analogy" (SA).

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Details of an analogy can, in fact, ultimately be attributed to the realization of space, time and geometry which in turn are the creations of human consciousness. Further, note that the human consciousness is not only different for different human beings but also of varying degree even for the same individual, i.e., these realizations of space, time and geometry could be different at different levels of human faculties of understanding.

As a matter of fact, in an analogy one looks for the similarity between the two situations, i.e., a search for "likeness in the different". Alternatively, one can as well look for "differences in the like". But the fact is the Nature has never made two objects identical (alike) and, therefore, the search for "differences in the like" does not make sense. Thus, the analogy is basically a 'bi-system' concept and arises as a result of operation on or applying a preconceived criterion to these (two) systems.

Whatever is said for analogy above somewhat similar is the situation in another context, namely the process of abstraction, when one wants to carry out the abstraction of knowledge or one wants to put the available knowledge in a nut-shell according to certain criterion. This is normally done by way of searching a generalized principle under which the entire proliferation can be made to converge. These concepts of analogy and process of abstraction have been quietly playing important role in the development of almost all disciplines of knowledge. While in some cases these concepts have helped in quantifying the ideas in a objective style, in other cases however they have helped in understanding and digesting the ideas in a subjective style. As a matter of fact, an extraction of the objective meaning out of the subjective ideas or the vice versa, requires not only a philosophical bent of mind but also to be a real expertise of the discipline under study.

Before proceeding further a few examples of the process of abstraction from mathematical sciences are worth giving here. Consider the Newton's three laws and the corresponding equations of motion. While a basis for the first and the third law can be found (Ref. (3), foot note 5.7) in philosophy in terms of analogies, the second law can however be considered as a special case of the Euler-Lagrange equation. This latter equation is basically the special case of a generalized equation derived by extremising a particular functional (in the case of dynamics this functional is the action intergral) in the calculus of variations. The use of variation.

principle as a basis of formulation of this generalized equation (which in turn just by analogously changing symbols, reduces to Newtonian equations, Maxwell's equation, Einstein equations or the Schordinger equation in divers fields) offer an example of the process of abstraction. In another case, recall the inverse square law of forces between two point objects separated by a distance, *r* viz.,

$$F=C\,Q_1 Q_2/r^2 \qquad (1)$$

where C is a constant, Q_1 and Q_2 are the measurable physical quantities (they are masses of the particles in gravitation, Coulomb charges in electrostatics, pole strengths in magnetism, color-charges in quark physics etc.) From the point of view of the abstraction, particularly for the central-field problems in mechanics, the closure requirement of phase space trajectories demands the solution of Euler-Lagrange equation only in this power-law form.

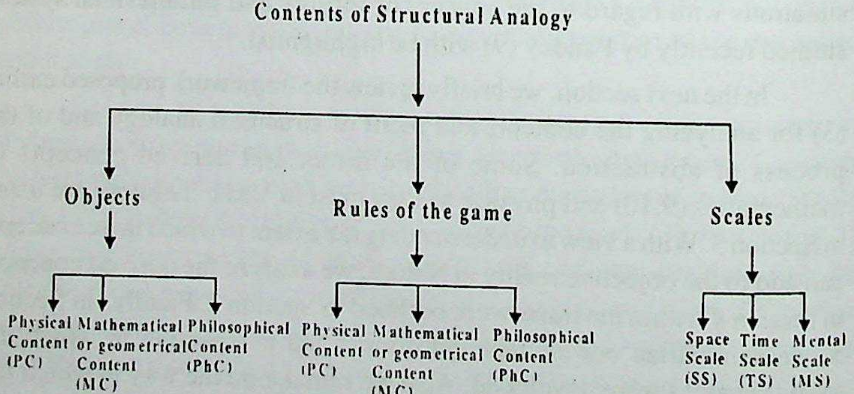
In Vedic sciences there are varieties of situations in which not only the concepts of objective sciences but also that of mathematics are expressed in a subjective style and sometimes in a symbolic language. While some mathematical concepts are expressed in a direct manner (as a part of pure knowledge) other are understandable only through analogies and processes of abstraction (leading to derived knowledge). As a matter of fact Vedās and also the subsequent derived Sanskrit literature offer a new style of the concept of abstraction. In the present Article we bring out some such cases from Vedic literature and investigate the merit of some of these ideas within a framework proposed earlier (3). In particular, several situations with regard to the concept of infinity and infinitesimal system studied recently by Pandey (9) with be highlighted.

In the next section, we briefly review the framework proposed earlier (3) for analyzing the contents and merit of structural analogy and of the process of abstraction. Some of the direct and derived concepts of mathematics (9,10) and physics, as they exist in Vedic literature are listed in Section 3. With a view to understanding the extent to which these concepts can add to the objective reality in Nature, we analyze the derived concepts in section 4 within the framework outlined in Section 2. Finally , in Section 5, we summarize our studies and discuss the perspective in which the Vedic sciences were developed. Also we remake on the way in which the analogies and the processes of abstraction played the role in these developments and in the subsequent proliferation of knowledge.

2. Contents of a Structural Analogy

As mentioned earlier both SA and the process of abstraction are the bi-system characteristics. While both the systems can be at different scales in terms of space, time, geometry, mental picture etc. the objects present in the two systems and their nature as well can constitute the important items to be compared. Not only this, the correlation (or coordination) among the objects according to a certain rule which in turn lead the systems to act or operate, offers another item to be compared. Thus, for comparison in the two systems in quite a general manner one can have (3,7,8) 'objects', 'rules of the game' and 'scales'. At the next level or fine-tuning or characterization of each of these contents of an analogy one can further have three sub-contents, namely 'physical', 'mathematical of geometrical' and 'philosophical' (respectively denoted by PC, MC and PhC) for the objects and the rules of the game and 'space', 'time' and 'mental' for the scales (respectively denoted by SS, TS and MS). Thus, an analogy can be analyzed within this general framework. It is a different thing that some of the contents and sub-contents in certain cases may be absent; otherwise this framework can consistently be used for the analogies in both soft (through metaphor, simile, examples or similarity) and hard (through models, symbols, arithmetic and algebraic operation etc.) disciplines in a general manner.

Schematically, the classification of contents of an SA can be represented as follows :


Contents of Structural Analogy
Objects
Rules of the game
Scales
Physical Content (PC)
Mathematical or geometrical Content (MC)
Philosophical Content (PhC)
Physical Content (PC)
Mathematical or geometrical Content (MC)
Philosophical Content (PhC)
Space Scale (SS)
Time Scale (TS)
Mental Scale (MS)

The person who use the analogy for the first time is termed (3) as 'user' and the one who used it after that is termed as 'analyser', Further, to demonstrate the above contents of an SA we return back to the example of inverse square law (cf. eq. (1)). Here object (symbols) are different in different contexts, and 'rules of the game', i.e., the inverse square law is the same. As the law used at the micro (between electron and proton) as well as mega or giga (gravitation) levels, scales are different. In another example note the analogy among the equations of harmonic motion appearing in different contexts, namely the equations.

$$\text{(i) } x + w_1^2\, x = 0; \text{ (ii) } \ddot{\theta} + w^2{}_2\, \ddot{\theta}=0 \text{ (iii) } \ddot{q} + w^2{}_3 q =0, \qquad (3)$$

are respectively used in linear and rotational motion, for the motion of charges in LC-circuit with $w_1 = (k/m)^{1/2}$, $w_2 = (mg1/I)^{1/2}$, $w_3 = (1/LC)^{1/2}$. Here again, while the rules of the game are the same, the objects and scales along with some of their sub-contents are different. One can as well compactify (abstraction) these equations into the form $\xi_1 + w_1{}^2\, \xi_1 = 0$ with $\xi_{1,2,3} = x, \theta, q$ and look for a common basis of this mathematical structure into the principle of least action or in turn in the calculus of variation for a harmonic potential function.

On the basis of several earlier (11) studies on the concept of analogy in science, Pask (6) has recently proposed a so called modified framework for the study of contents of an analogy. It is nor difficult to realize the limitations of his framework in view of the one discussed above as far as the depth of this concept is concerned. Further, within the present framework it is also possible to talk of the merit of an analogy. In this case one looks for the number of matching contents (sub-contents) and their descriptions in the two systems (or in the two situations) with a certain number (n) of suppositions and accordingly defines the quality (q) of an analogy by studying the gap (g) between the corresponding descriptions. For the purpose one writes (3) $q = K/(ng)$, where K is the constant of proportionality depending on the development of faculties of understanding of the analyzer of the analogy.

3. Direct and Derived Mathematical Concept in Vedic Literature

In Vedic literature the mathematical concepts mainly appear in two different ways either in direct numeric form with necessary arithmetic/ algebraic operations or as one of the plausible mathematical meanings of the phrase or the verse. This latter assertion will fall here under the category of 'derived mathematical concepts'. It is this latter case where the role of metaphor, simile or analogy comes into picture to spell out the underlying mathematical concept(s) in the verse. Again it depends on the development of the faculties of understanding of the user to extract depth of the underlying mathematical meaning of a verse. It may be mentioned that in Vedic literature often it has been the problem of extracting a unique meaning of some crucial verses because of contextual and temporal changes in the meanings of words, phrases or the verse as a whole. Also, while many verses have deeper philosophical meaning(s), some of them hint in clear terms to mathematical or physical concepts of day-to-day life. In what follows we cite and list some examples of both of these categories separately form Vedās, Upaniṣads and Srimadbhawad-Gītā for the puropses of analysing them in Section 4.

3.1 Examples of Direct Mathematical Concepts

As one starts with Vedās and continues through Barmanās, Upaniṣads and Srimadbhawad-Gītā (SMBG), there are many places where numerals and the arithmetical operations are appearing in clear terms and in a variety of contexts. Seers have while talked of the numbers up to 20 very frequently for the countable situations, the numbers 50, 100, 1000 and infinity are often cited for the uncountable situations. The operations of addition, multiplication and division on numbers have also been used in some cases. This shows that there have been efforts to quantify both the objective and the subjective knowledge pertaining to this world. In Table 1, to this effect we cite some situations and highlight some selective sources (12-14) for the occurrence of numbers. Some mathematical operations involved in the verses cited under entries 5, 11 and 20 in Table 1, are also hinted. Also, a case of the mathematical phrase "is equal to or greater than" can be found in SMBG : 11/-43. The entries 17 and 20 will be of particular interest in the following discussion and we shall return to them later. Only a few cases of direct mathematical concepts in ancient Vedic literature are listed here; otherwise in the later period (particularly, during 3-12 century A.D. and definitely before the western mathematicians ever thought over), several Indian mathematician like Aryabhata, Bhaskara, Madhava and others contributed to this discipline of knowledge by compiling books on the subject but in Sanskrit language.

3.2 Some Cases of Derived Physical Concepts in Vedic Sciences

(a) Analogy with the visible part in the huge electromagnetic spectrum : Look at the following verse from Srimadbhawad-Gītā (cf. SMBG : 2/-/28)

Avyaktādīni bhūtāni vyaktamdhyāni bhārata,
Avyaktanidhanānyeya tatra kā paridevanā. (4)

Meaning thereby "Arjun, all beings were unmanifest before they were born, and they will become unmanifest again when they were dead. They are manifest only in the intermediate stage. What occasion, then, for lamentations ?" Clearly, in view of the theory of rebirth, the existing (visible) life span of a being can be analogously considered as a small visible ('VIBGYOR') part in the huge electromagnetic spectrum.

(b) Age of the universe : There is verse in Srimadbhawad-Gītā (cf. SMBG : 8/-/17) which directly hints to the age of the universe in terms of a relative time frame, namely

Sahastra yuga paryantamaharyadbrhmaṇo viduḥ,
Rātriṁ yuga sahastrantāṁ te ahorātra vido janāḥ. (5)

Meaning thereby "those who know from realization Brahmā's (creator) day as extending to a thousand Mahāyugās, and Brahmā's night as extending to another thousand Mahāyugās they alone know the reality about time." Further, the next two verse (cf. SMBG : 8/-/18,19) Lord Krishna asserts that all embodied beings emanate from the unmanifest (i.e., Brahma's subtle body) at the commencement of Brahmā's day; at the commencement of his night, they merge in the same subtle body of Brahmā, known as unmaifest. These verses clearly emphasive the concept of relative time in Vedic sciences.

Following a definition of Mahāyugās from Manusmṛti (cf. Ref. (15), Chapter 1, verses 64-73) one can as well compute the age of the universe from the verbs (5) which is equal to one day plus night of the Brahmā. Here each day and night is in the units of 1000 Mahāyuga. Alternatively, in terms of solar years, note that

Brahmā's life = (one day + one night) in the units of 1000 Mahāyugās
= 2000 Mahāyugās

But, one Mahāyugas = the sum of durations of **four** yugās, namely

Kali, Dvaper, Terita, Sat

$= x + 2x + 3x + 4x$ -

$= 10x$

where $x = 432000$ solar years, is the duration of Kali yuga. Thus, the age of the universe (= Brahmā's life time) = $2000 \times 10 \times 432000$ years

$= 864 \times 10^7$ years $= 8.64 \times 10^9$ years

= 8.64 billion years.

On the other hand, modern theories of the universe suggest (16) the age as equal to the inverse of the Hubble constant, i.e., about 10 billion years. This somewhat larger than the one predicted by the Vedic science. Note that the Hubble constant, in recent years, is no more found to be a constant but changing with time and hence this will add to some uncertainty in the modern predictions.

In this connection, it is worth recalling an internet humour based analogously on the relativity of time:

> "Einstein climbs to the top of Mt. Sinai to get close enough to talk to God. Looking up, he asks the Lord, 'God, what does a million years mean to you ?' The Lord replies, 'A minute'. Einstein asks, 'And what does a million dollars mean to you ?' The Lord replies 'A penny'. Einstein asks, 'Can I have a penny ?" The Lord replies, 'in a minute".

- Internet Humour, Times of India, Nov. 4, 2004.

(c) The Concept of Physical Field and the Second Quantization : There is a verse in Srimadbhagwad-Gītā (cf. SMBG : 13/-/16) which, while describing the qualities of God, also hints clearly to the concept of a physical field and its second quantized version in an analogous manners, viz.,

Avibhaktaṁ ca bhūteṣu vibhaktamiva ca sthitaṁ,
Bhūtabhartṛa ca tajgyeyaṁ grasiṣṇuu prabhaviṣṇu ca. (6)

In other words, "though indivisible (like ether), It stands as if divided among beings. That knowable substance is the sustainer of beings (as Viṣṇu), destroyer (as Rudra) and creator (as Brahmā)". Thus, the continuous (indivisible) field has been considered as if it is also manifesting through different (discrete) individual beings in the sake way as the discretization of the continuum field in physics takes place via second quantization a process of converting the continuum to the granular form. Not only this, in the physical theories we also design (17) the creation, annihilation and number operators for the given field, in the same way as the job respectively of Brahmā, Rudra, and Viṣṇu. Moreover, these considerations are further supported by another verse (cf. SMBG : 15/-/17), namely,

Mameivāns'o jīvaloke jīvabhutaḥ sanatanaḥ,
Manaḥ sas thānindriyānī prakṛatististhāṁ karṣati. (7)

That is, "the Jīvātmā (soul) in the body (field quantum) is an eternal portion of Myself (continuum field); it draws with it the mind it the mind and the five senses that rest in matter". Thus, the field-quanta carry the characteristics of the field itself. Also, imperishable substance (Supreme Lord) abiding equally in all perishable beings (Jīvātmā) (see, SMBG :13/-/27).

There are several other verses in Srīmadbhawad-Gītā with clear hints to modern physical concepts. For example, there is a mention (cf. SMBG : 13 /-/26) of cosmic source (Purusa or 'kṣhetrajña') and cosmic sink (Prakṛiti or 'kṣetra') and the union of the two leads to this present world characterized by both animate and in animate objects. Further, one can find a basis for (or a possible generalization of) the 'principle of causality' of physics in the verse SMBG : 13/-/20).

3.3 Examples of Derived Mathematical and Physical Concepts

While some cases of derived physical concepts are already mentioned above, here we list further examples of derived mathematical concepts. About four decades ago Swāmi Srī Bharati Krishna Tirtha ji (10) found several standard phraseds in Sanskrit literature. The interpretation (s) of these formulae finally led to several simplified arithmetical operations. These operations, when applied to a problem, no doubt require a little more work at the mental level but are found very efficient in providing the final answer to the problem almost instantly, of course only after a sufficient practice by the student.

G.S. Pandey (9) has recently shown the existence of several mathematical concepts of derived nature in ancient Sanskrit literature. In particular, the concepts of zero, infinity, infinitesimal system, the Dirac delta function and Fourier transform are extracted as one of the most plausible meanings of several verses in Vedic science. This is done mostly on the basis of analogies of different order in the spirit of Section 2. Some of these cases we want to investigate from this point of view are as under:

(a) Solar system of Rigvedic Science : Pandey (9) highlights the model of solar system as described in Rig-veda by the verse (RV : 164 /11)

Dvādas 'āraṁ nahitājjarāya
varsarticakram paridyāmr atasya,
Āputrā agne mithunā so
Atr sapta s'tani vins'ātisca tasyuḥ. (8)

In other words, "the Suns' wheel with 12 spokes revolves round (the earth) and is never destroyed. Oh ! Fire on this wheel are mounted (360) couples containing seven hundred and twenty people".

In view of the model of the solar system of modern science, this verse of Rig-Veda in fact represents the reality and not the analogy except for the use of symbolic language. Day and night, considered as the couple, constitute the figure of 720 in a solar year.

(b) The Cases of Zero and Infinity in Vedic Science : To highlight the cases of zero and infinity in Vedic literature Pandey (9) cites the following verses from Īs'avāsya and Kathopaniṣads :

Om pūṛnamadaḥ pūṛṇamidaṁ pūṛṇāt pūṛṇamudacyate,
Pūṛṇasya pūṛṇamādāya pūṛṇmevā vasisyate. (9)
(opening and closing verse in IU and also in BU : 5/1/1)
Yadā sarve pramucyante kāmā ye asya hiṛadi s'ritāḥ,
Atha martyoamṛato bhavatyatra barhma samas'nute.
(KU : 2/3/14). (10)

In addition to this, there are several other places in Vedic literature where the mention of zero (sunya) and infinity ('ananta') can be found in clear terms. Also, the concept of infinity is discussed through analogies. For example, in the following verses the infinite character of ocean is highlighted through the analogies :

Apuryamanamacala pratistham
samudra mapah pravis'snti yadvat,
Tadvatkama yam prvis'anti sarve
sa s'antimapnoti na kamakami. (SMBG: 2/-/70) (11)

Yathā nadyaḥ syandamānāḥ samurdre-
astaṁ gacchani nāmrūpe vihaya,
Tathā vidvan nāmarūpād vimuktaḥ
parātparaṁ puruṣamupeiti divyam. (MU :3/2/8) (12)

Before analyzing the above cases some remarks about Vedic science and pure mathematics are essential.

It may be mentioned that the domain of validity of physical laws or physical concepts is basically limited to the study of space-time structure of Nature, where as the concepts of Vedic science go several steps further by having all the time one leg in the philosophical domain. In other words, Vedic sciences account for the description of entire universe/ cosmos which includes both (cf. entry 22 in Table 1) animate and inanimate matters and their interactions. They deal not only with the space time structure of Nature but also with their creator - God, Soul, consciousness, Being etc. As a result, the objective sciences (including physics and biology), whose existence makes sense only after the creation of the Being, should be viewed as a special case of Vedic science and not the vice-versa.

If one extracts the meaning of a Vedic verse which is relevant to modern mathematics (or to objective sciences for that matter), it is fine; otherwise objective sciences have to go a long way to make may comparison with Vedic prescriptions / descriptions. In this respect the mathematical constructs and the operations on them in their purest form can have some similarity with the Vedic concepts in the sense that axioms of pure mathematics in on way have any linkage as such with the space-time structure of Nature, rather they are quite general, abstract and free from the boundaries of space-time dependent scales. Thus, the description of zero (null set) and infinity (a super superset) is bound to be there in any description of 'absolute' reality (3) in Nature. If one ignores the concept of (space-time) scales, then why only the zero and infinity even other numerals can be equal importance. If fact they are the creations out of a highest-level-thinking by Vedic Risis (seers) possibly with a view to quantifying all-pervading, finest possible matter (whether animate or inanimate) in this universe.

In view of the above arguments one can say that the absolute absence of 'something' will constitute the zero with respect to the 'something'. On the other hand, contrary to this the enormous presence of the 'something' will constitute the infinity. For a scientist, the existence of this 'something' has to be 'somewhere' and at a 'certain point of time' since in this case one has to finally come out with certain units (space-time scales) in spite of having a 'picture' in one's mind which is free from the boundaries of space and time. One can call this game as the quantification of the abstract construct. For the scientist the mental (inner) world, full of experiences (of course some of them are independent of space and time) and based on consciousness, has to play no role as far as the objective description of Nature is concerned.

Clearly, space-time does not constitute the end points of the human experiences and so is the knowledge derived out of them. If is this spirit which prevails in Vedic verses. In this way one can understand the existence of varieties of infinities in the Verse (9) and perhaps the mathematical infinity could be one or more of them (9). For a theoretical physicist, on the other hand, there could be another choice of infinity in this verse in the spirit of field theory. The fact is that there is no analogy used in this verse and hence presents a sample of purest form of knowledge. However, in Verse (10) the emphasis is on infinite number of human desires which need to be destroyed in order that the ultimate (!) is attained by the experience.

In Verse (11) the infinite character of an ocean is defined through an analogy. The effect of sense-objects in terms of enjoyments (on a 'man of perfection') is compared with that of water of different rivers flowing into the (infinite) ocean. Just as the man of perfection is not disturbed in terms of peace of mind, the ocean is also not affected by the influx of water in terms of its overflow. In the language of Section 2, in this analogy the 'objects' are different while the 'rules of the game' remain the same. Further, the space time scales are different but the mental scale is the same. In Verse (12), these are not the enjoyments which merge into the man of wisdom without disturbing his peace but the man of wisdom himself merges into the Divine Supreme (in 'Samādhi') by sacrificing his individuality in terms of the name and identity. As a matter of fact, the latter was the spirit and goal of Vedic Risis with regard to attaining the ultimate knowledge about this world. The analogies involved in Verses (11) and (12) are the cases of two bi-system characteristics.

131414

(c) The Case of Fourier Transform : The famous verse of Srimadbhagvad-Gītā (cf. SMBG: 2/-/22), Viz.,

Vāsānsi jīrṇāni yathā vihaya navāni gṛahṇāti naroparāṇi,
Tatha śarīrāni vihaya jīrṇ anyanyāni saṁyāti navānidehī. (13)

also offers the case of two bi-system characteristics as far as the nature of the underlying analogy is concerned (also see, the Verse SMBG : 15/-/18). In other words, "as a man discarding worn-out clothes, takes other new ones, likewise the embodied soul, casting worn-out bodies, enters into other which are new." As in Verses (11) and (12) here also is the comparison of the same process (but with different contents), namely, "discarding the worn-out and taking (entering into) the new ones" in the two situations. The process in one case is used to describe the unknown to unknown transition (cf. Ref.(3), Chapter 5) occurring in the other situation.

In mathematical terms, the Fourier transform connects two distribution functions defined respectively in two coordinate-spaces which are canonical conjugate pairs in the sense of Hamiltonian dynamics. In physical terms, however, the Fourier transform is a reality of Nature that has revealed the sub-structures of matter at various stages starting from molecules, atoms, nuclei and now nucleons via the language of structure/form factors. According to Verse (13), the change of clothes gives a new look to the same body and so is the change of body gives a new look to the same soul, as is the case with two distribution functions in the Fourier transform. Naturally, the concept of 'canonical conjugacy' of the two variables needs a 'clarification' (!) in the former case.

What we have presented above are only some representative cases from the ancient Vedic literature; although the latter is full of many such verses which finally provide knowledge in absolute terms, i.e., a knowledge which is not only free from the analogies and examples but also from the boundaries of space and time.

4. Objective Reality Versus Quantification of Knowledge in Vedic Literature

Absolute reality in Nature can be attributed to the purest form of knowledge that leads to an understanding of the world-order in totality. It can be considered as (cf. Ref. (3), Chapter) consisting of subjective (realizable) and objective (quantifiable) components just like the two sides of the same coin. Vedic sciences deal mostly with the former component and there is somewhat less emphasis on the objective component. In fact, while ancient Vedic seers (so called 'Ṛsis') always had an eye on the understanding of subjective reality in Nature, they initially did not bother much about the development of the objective part. It is only at a later stage that they started thinking of quantification of knowledge. As a result, simile, metaphor, examples and analogies started appearing in the later scriptures, i.e., in Upaniṣads, Rāmāyana, Mahābhārat etc. and that too in an increasing order. This has led to a proliferation of knowledge at the level of purāṇās. Thus, the continuous spectrum of knowledge pertaining to the entire gamut of human experience was later quantified by taking recourse to examples and analogies, and the numbers and arithmetical operations played an important role in these developments. As far as the concepts of objective sciences of those or applied mathematics are concerned, they remain of derivable nature and the experts in these subjects have been working on these aspects in modern times. It may be mentioned that the predictions of the models, constructed this way, of modern science are verified in experiments only through numbers at the final stage. In the same spirit, the modeled (alalogous) ideas of the Vedic literature need to be verified since the models themselves are also somekind of analogies (3).

Mathematics is the exactness of exact (mathematical) sciences in the sense that (cf. Vedang Jyotis (1200 B.C.) as cited in Ref. (9)).

Yathā śikhā mayūraṇāṁ nāgānāṁ maṇyo yathā,
Tadvadvedāng śāstrāṇaṁ gaṇitaṁ mūrddhanisthitam. (14)

i.e., "As the crest of peacocks and gem (mani) of serpents, likewise mathematics is at the top of all branches of learning". Note the analogy in Verse (14) in the appraisal of gaṇita (mathematics). In view of this fact the tools of mathematics (whether numbers of operations on them) have always been having the ground level realities for a common man in day-to-day life since time immemorial, then what to say or Vedic literature. In summary, mathematics (particularly arithmetic and geometry) has always been an integral part of life for a common man.

Regarding the merit of analogies involved in the verses of Section 3, the following remarks are in order: While the verses (5) and (7)-(10) reveal the pure knowledge (as they are free from the analogies and also the space-time), nevertheless, the verses (4), (6) and (11)-(13) do involve certain types of analogies. No doubt the verses (4) and (6) again reveal pure knowledge but the physical concepts derived out of them are the outcome of the created analogies with modern physical. In this respect Pandey (9) has extracted a variety of modern mathematical meanings out of several Vedic verses on the basis of created analogies at the mental scale for the first time, i.e., he is the 'user' and we are the analyzer (3) of the analoies. In general, his analogies are rich in the philosophical content as far as the 'objects' are concerned, whereas they are much richer in thee mathematical content with regard to the 'rules of the game' (cf. Chart (2)). While the verse (13) offers a little complicated picture in terms of two bi-system characteristics, the analogies involved in Verses (11) and (12) are of the highest quality as the number of assumptions (n) are minimum and the gap (g) in the descriptions of the two systems is also minimum even from an expert's point of view, thus leading to the quality q(=K/ng) as large.

5. Concluding Discussion

After reviewing the framework of our studies for the contents of SA (cf. Chart (2)), we have unveiled a large number of cases from Vedic sciences where the mathematical concepts and the associated operations appear directly or indirectly in the verse. It is pointed out that some of the Vedic verses are just like mathematical formulae on the basis of which several examples from day-to-day life can easily be worked out. Also, it is noticed that the extraction of mathematical of physical concepts out of some verses becomes a matter of one of the plausible interpretations of these verses. Many examples from Vedās, Upaniṣads and Srimadbagwad-Gītā are cited in which several numberless upto 20 and also the numbers 50, 100 and 1000 appear frequently (cf. Table 1). In addition to the examples studied by Pandey (9), several new cases are highlighted here with reference to the derivation of physical and mathematical concepts from Vedic verses. This is done by establishing some new analogies. In this connection the role of analogies with two bi-system characteristics is highlighted for the first time.

Some of the Vedic verses are shown to possess the highest degree of abstraction of knowledge. While they are presenting the purest form of knowledgs (in the sense that their interpretation(s) are not only free from analogies but are also independent of space-time structure of Nature), their similarity with the abstract constructs of pure mathematics (such as set, group, field, vector space, etc.) is highlighted. As an abstract system of pure mathematics can be tuned to any application in objective sciences, so are the meanings and interpretations of these Vedic verses with regard to the description of Nature as well as the human behaviour. Note that these latter studies are carried out only through modeling games and analogies. As a matter of facts, as and when one wants to express some abstract (so called 'difficult') ideas to a person who has a 'lower' level of understanding (in terms of the development of corresponding faculties of understanding), then analogies/examples are used as a medium of imparting the knowledge. The quality of these analogies, however, depends on the level of understanding of the user. This is how knowledge proliferates and propagates.

Fig. 1, gives the summary and the motivation of the present work. This emphasizes the role of an individual which he is expected to play with regard to the pursuit of subjective and objective components of the absolute reality in Nature. The choice of the area of pursuit depends on the development of the faculties of understanding - whether one is a philosopher, scientist, common man or a yogi (cf. Ref. (3), Chapter 1). Again, one can not afford to ignore the linkage between the Vedic (subjective) science and the objective sciences. Then, infinite of the former becomes the 'finite' of the latter by way of modeling the phenomenon under study. While the former deals with the abstracto of knowledge, the latter gives rise to the proliferation of knowledge via technological applications. The processes of abstraction and proliferation of knowledge are nothing but a game of examples and analogies. While the understanding of the former leads to peace, that of the latter ends up in pleasure. All this depends on the extent to which an individual has become expert in the art of living in this world. Like subjective and objective components of the absolute reality, peace and pleasure, are also the two sides of the same coin. It is the principle of 'neit' 'neit' ('not this', 'not this') that leads to peace and that of 'bhukti', 'bhukti' ('also this' 'also this') which gives rise only to spatial and temporal pleasure.

Table 1:- Some representative citations from Vedic literature (12-14)

which reveal the occurrence of numerals and arithmetical operations in different contexts. [KU ≡ Kathopaniṣad; MU: Muṇdakopaniṣad; PU ≡ Praśnopaniṣad; TU ≡ Teittiriyopaniṣad; SU ≡ Śvetāś vatasopaniṣad; SMBG ≡ Srīmadbagvad-Gītā; RV ≡ Ṛk-Veda; AV ≡ Atharva-Veda; YV ≡ Yajur-Veda; SV ≡ Sām-Veda]

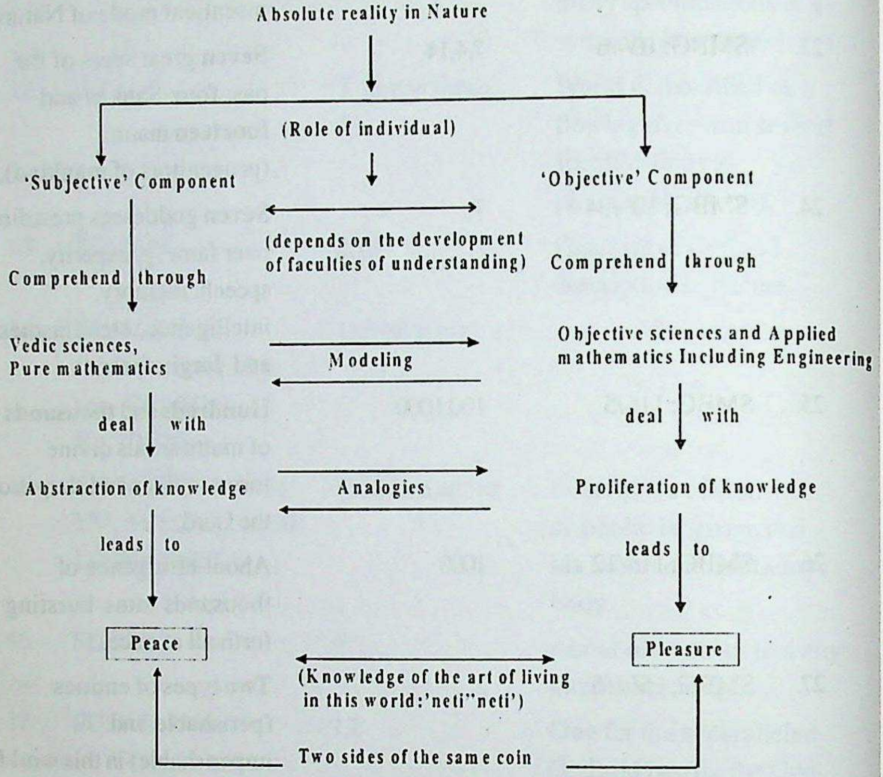
S.No.	**Source/Reference (*)**	**The number (s) cited**	**Context / Remarks**
1.	KU:1/1/17-18	3 (three times)	By worshipping thefire three times, one attains the knowledge of threeVedas (Ṛg Yaju, Sam).
2.	KU:1/1/23	100	In the context of age of successors of Nachiketa.
3.	KU:2/3/16	101	Cited as the number of nerves in the heart.
4.	KU:2/2/1	11	**Eleven** gates in the city of human body.
5.	PU : 1/-/11 (Also, AV : 9/14/12; RV : 1/164/12 RV: 1/164/12)	5,12, factor 1/2	The Sun god is supposed to have five feet and **twelve** faces.
6.	PU : 6/-/5 (Also, MU : 3/2/7)	16	God is full of **sixteen** 'Kalā' (sport spirits).
7.	MU : 22/1/8	7 (five times)	**Seven** varieties of 'Pran'. flames of fire, wood for 'Yajña' etc.
8.	TU :1/4/p.332	1000	**Thousands** of varieties of Devine faces of God.
9.	TU :2/8/p.386-391	100 and 1 (ten times)	**Hundreds** of varieties of enjoyment and pleasure in this world and their relative grading etc.
10.	SU :1/-/3	1	God is described as the Cause of all causes.
11.	SU:1/-/4	1 (twice), 3 (twice)	Universe is described as a

		16,50,20,6,3,2	moving wheel with so many specifications in a symbolic language.
12.	SU:1/-/5	5 (seven times), 50	World is described as a flowing river with several specifications in philosophical terms.
13.	SU: 1/-/9	2,1,3	Qualities of God and description of Nature.
14.	SU: 3/-/1-3 (for the last verse, also see, AV: 13/26; RV: 10/81/3)	1 (four times)	-do-
15.	SU:3/-/14 (Also, see, YV : 31/1,2, RV: 10/90/ 1,2; AV: 19/6/1,4)	1000 (twice), 10	Description of God in a symbolic language and his location in the human body.
16.	SU:3/-/18	9	About **nine** doors in a city like human body.
17.	SU:4/-/1;4/-/6	1,2	**One** for the unparalleled God and **two** for the God and the Being.
18.	SU:5/-/1	2	Manifestation of **both** knowledge ('Vidya') and ignorance ('Avidya') from the same God.
19.	SU:5/-/7 (Also see, SMBG; 14/-/21;17/- /7; 18/-/4	3	About the bondages of the Being by three 'gunas' in this world.
20.	SU:5/-/9	100(twice) and 1/100	fraction About the size of the Being.
21.	SMBG; 4/-/12; 7/-/16	4	About **four** major castes; **four** types of persons who remember God.

22.	SMBG; 7/-/4	8	**Eight**-fold division of insentient mode of Nature.
23.	SMBG; 10/-/6	7,4,14	**Seven** great seers of the pas; **four** Sankās and **fourteen** mauns (progenitors of mankind).
24.	SMBG; 10/-/34	7	**Seven** goddesses presiding over fame, prosperity, speech, memory, intelligence, steadfastness and forgiveness.
25.	SMBG; 11/-/5	100,1000	**Hundreds** and **thousands** of multifarious divine forms, colour and shapes of the Lord.
26.	SMBG; 11/-/12	1000	About effulgence of thousands suns bursting forth all at once.
27.	SMBG; 15/-/16	2	**Two** types of entities (perishable and imperishable) in this world.
28.	SMBG; 16/-/12	100	About the bondage of the Being by **hundreds** of expectations and desires leading to passion and anger.
29.	SMBG; 18/-/14	7	The **five** factors responsible for the success of task/ assignment.
30.	Mu: 3/2/8; SMBG; 2/-/ 70; 11/-/19	00	In both the cases ocean is considered as **infinite** compared to small rivers of their analogues.

(*) Citations should be read as (Chapter of Muṇḍak or Praśna/Vallī or

Khaṇda or Anuvāka/Verse)


Absolute reality in Nature
(Role of individual)
'Subjective' Component
'Objective' Component
(depends on the development of faculties of understanding)
Comprehend through
Comprehend through
Vedic sciences, Pure mathematics
Modeling
Objective sciences and Applied mathematics Including Engineering
deal with
deal with
Abstraction of knowledge
Analogies
Proliferation of knowledge
leads to
leads to
Peace
Pleasure
(Knowledge of the art of living in this world:'neti''neti')
Two sides of the same coin

NOTES

1. Radhey Shyam Kaushal, "Human Being : From the point of view of a philosophical atom-type model", *Journ. of Scientific and Ind. Res.* (New Delhi) **49** (1990) 578-82.

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5. H. J. Holyoak and P. Thagard, *"Mental leaps : Analogy in Creative Thought"* (MIT Press, Cambridge, MA, 1995).
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10. Jagatguru Swami Sri Bharati Krisha Tirth ji, *"Vedic Mathematics"* ed. by V.S.Agarwal, (Motilal Banarasi Das Publications, 1970).
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12. "Is'adi Nao Upaniṣad" (Is'a, Kena, Katha, Pras'an, Mundaka, Māndukya, Eidtareya, Tettriua and Śvetaśvatar- Upaniṣad). ed. by Harikrishna Das Goyanka, GitaPress, Gorakhpur, 14th edition, Samvat 20501; six of them, Is'a, Katha, Pras'na Mundaka, Teittriyo, and S'vetas'vatarar cited in the text respectively as, *IU, KU, PU, MU, TU and SU.*
13. "Bṛahadārnyak Upaniṣad", Gītā Press, Gorakhpur, cited in the text as BU.
14. "Srimadbagvad-Gītā" or "The Divine Song" (with Sanskrit Text and an English Translation, Gītā Press, Gorakhpur), cited in the text as *SMBG.*
15. *Manusmriti*, Chapter 1, Verses 64-73, as cited in, "Srimadbagvad-

GītāTatvavivecani" commentary in Hindi by Jaidayal Goyanaka, (Gītā Press, Gorakhpur, Samvat 2023), p. 344.

16. See, for example, J.V.Narlikar, *"Introduction to Cosmology"*, (Cambridge University Press, Cambridge, 1993), Chapter 9.,

17. See, for example, J.J. Sakurai, *"Advanced Quantum Mechaincs"*, (Benjamin/ Cummings Pub. Co.INC, 1984) Chapter 2. In the context of quantum field theory one also defines a+kand ak for the creation and annihilation operator N as field quantum in the state k and defines a number (preservation) operator N as N= a+k ak, in the sam way as in verses (6) and (7).

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19. This paper is based on the invited talk delivered in *The International Conference on The History and Heritage of Mathematical Sciences*, held at Indore (India) during Dec. 16-19, 2004

A CRITIQUE OF KANT'S CASUISTIC METHOD OF TEACHING ETHICS

DEBASHIS GUHA

When it comes to the question of teaching Ethics, we generally speak of the Sophistical and the Casuistic models. The Sophistical model faces the charge of being *top-heavy,* that is, it is accused of great degree of ethical chauvinism by teacher in terms of what he or she knows to be true particularly with regard to ethical principles and their unilateral application in resolving value-laden problems artificially in a typical classroom situation. It is also believed that such ethical engineering is rather detrimental in the moral development of a child when such a teaching model is applied in schools. Some people in recent times have been championing casuistic model in its place for it case-based, needs independent ethical reasoning in a gamesituation and least intervention by teachers. More interestingly, it encourages dialogue or discourse among teacher and taught to resolve value-laden problem. I propose to examine the so-called merits of the casuistic model by going to its roots, that is, by examining, what Immanuel Kant holds in this regard, particularly in a set of lectures entitled Uber Pedagogic or On Pedagogy.

First, Kant makes it clear that ethics teaching is a necessary component of wholesome education for education has three aspects, namely, *care, discipline and moraliztion.* Hence, a lack of moral (or what is ethical) education deters the holistic growth of a person. It is interesting to notice that Kant was far too wise to realize that this final stage or aspect of education, which is 'moraliztion', is still far off. Truly, it is nor possible overnight but how at all it should be made possible ? To answer this is to enter into the discussion of *model* of ethics education. A second important remark made by Kant is that "moralization" does *not* refer to individual development but rather to the holistic development of

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humanity at large. (This further makes cleare, that we are certainly not in a time of moralization). 'Moralization' is still not in view because a shift in material culture does no guarantee a moral change. It may be added that a persisting religious / metaphusical culture does not guarantee it as well. Kant thinks that broadly speaking parctical education should thus address to three things (corresponding to the three stages or aspects of education): *Scholastics -mechanical formation* with regard to *skillfulness, pragmatic formation* with regard to *prudence* and *moral formation* with regard to *ethics*. Unequivocally therefore, "ethics" plays a vital role in education and in moralization therby. Again the cruial question is, what ought to be the proper model of such ethics education ? He splits this basic question into two: How should children and adolescents learn about ethics ? and What methods parents and teachers employ in trying to teach ethics ? Some care should be given to the second question in so far as it is a proper question of teaching methodology and that it covers parents. So parents are not left out of ethics teaching project.⁽¹⁾

But one should clearly try to understand at the outset what Doctrine of Method really aims at in the name of finding a way to teaching ethics. What has to be really taught in ethics is the main question. This Kant clarifies in **5:154** in the Critique of Practical Reason by stating that human beings whose cognitive capacities are not yet developed fully need 'biographies of ancient and modern times with the purose of having examples at hand of the duties they lay down'. Hence, the enrichment of the pure practical reason of a person is made possible by what can be seen and felt by them. The idea is that parents and teachers are better placed to call into service role models and ideals for learning through initiation and/or entrance into the human mind of the laws of pure practical reason and influence on the maxims of the same. It is believed that the yet unmoralized person is in need of a physical or concrete manifestation of virture for self-identification and learning. Nevertheless, Kant stresses more on "the rule and instruction of our own *reason*" because it teaches us "what we have to do and directly commands us to do it". In any way, it is here that we are aware that Kant is aware of dichotomy of 'very young people' and 'more mature people' with regard to teaching ethics through 'role models'. We shall come to realize that teaching ethics may not be so easy even when we come to mature to very mature people beacuse "reason alone" may not be sufficient. Moreover, application of adult "reason" is not so clear and therefore, Doctrine of Method is a little cumbersome in justifying the proper method of moralization. Two things are clear nevertheless, one is the Kant is aware of the problem of teaching ethics to school children, particularly very young ones and the other is that he is aware of the vices of 'top heavy' indoctrination.

Yet, Kant's model of ethics education through "exemplary conduct of teachers", the "cautionary example of other people" and "deeds and views of noble people" is nothing but what we call "moral catechis", which is no way teaching wholesome ethics. One should not confuse between teaching 'ethics' and teaching 'moral values' and/or 'human values' etc. To teach 'ethics' amounts to a wholesome dose of normative theories, their justification, metaethics and applied ethics. There is really no point in thinking that teaching moral virtues and values, human values and religious values would be the same as teaching 'ethics'. What is more interesting is Kant's over enthusiastic project of "moralization". Is it a little sophistical ? Do we dream about moralizing (making moral) the unmoral and immoral people as we used to think of becoming logical by learning logic? When do we say moralization is complete ? We have to abide by Kant's deontology to hold that moralization amounts to unconditional decision-making through the dictates of pure practial reason. It would then creat a stirr among the teleologists and we at hand the age-long hegemony of ethical theorists. But where is moralzation through teaching ethics in real sense ? Even teaching pure deontology does nor end up in teaching ethics. Any reference to 'role models' (for instance, Raja Harishchandra or Raja Dashratha or Raja Janaka) may not be sufficient in ethics teaching either. A complete confusion of moral teaching and ethics teaching is at hand. Such confused people often think that moral science is moral philosophy. Some of them go far enough to imagine that moral science is in fact "religious metaphysical-religious indoctrination with what he thought to be 'eithics teaching'. Rather, he was outspoken in rejecting any religious indoctrination in the name of ethics teaching. But Kant was not clear about whether or not 'ethics' teaching is needed for ethical application and resolution metaphysical indoctrination we shows be careful here to notice that Knat never confused of value-laden issues thereby. What we get from his works is that such teaching was imperative for 'moralization', which bears the brunt of sophistry because 'making moral' is just not possible and not needed as well. Who on earth has given us this utterly difficult job and why is not clear to us ? We have to remember that teaching wholesome ethics (three tasks of ethics) is not needed for moralization and resolution of ethical impasse because best taught ethicists may be utter failures in sophistry and ethical engineering. We come to know that greatest problem with Kant is that he is trying somehow or other to apply the same method of teaching both ethics and logic. His basis sophistry is clear with the pronouncement of Lehrat (method of teaching). Robert B. Louden remarks: "On his (Kant's) view, there is and can be only one formal doctrine of method but one apply it to different subject matters".[2]

As we proceed with "Methodenlehre" (in Grudlegung zur metaphysic der Sitteb) Kant's moralization program through ethics teaching becomes more pronouned. We should be careful in finding out whether or not it is the old Church fathers' "casuistry" in some form, whether or not it is some sort of ethical engineering and sophistry in disguise. Kant writes: "The presentation (of ethics) can either be *acromatic* where all but teachers are mere listeners, or else *erotematic* where the teacher asks his pupils what he wants to teach them"[3] and he adds that in moral education the erotematic or the question-and-answer method is mor applicable because the method aims at enabling students to find out the "he himself is capable of thinking"[4] Kant has further subdivide the 'erotematic' method of teaching ethics into what he calls the "dialogic manner" and the "catechistic manner" or teaching.[5] The latter method is based on "memory book" of pupils, they do not work on the basis of their inherent intellectual capacities rather, recalls what they have been taught. On the other hand, the 'dialogic' way of teaching is essentially Socratic where teacher and student participate in a lively asking-questions-and-finding-answers on the basis of their own. It is important to notice here that Kant has preferred the term *Lehrer* rather than *Kunst* in this regard because the former clarifies the teaching method as some sort of a "doctrine", a way to do something etc. and not "art" or "kunst". Kant must be aware of sophistry and ethical chauvinism it appears because he is careful not to speack of a teacher going for "an art of ethics teaching" perhaps to make pupils of great moral characters as did the Sophists. He thus appears to be Socratic in his approach with a caution that he nevertheless wants to "moralize" his pupils (the meaning of which is nor clear, as I have said particularly when we now place it with 'Kunst').

It is not surprising why Kant goes for catechism first and then for the dialogic method in ethics teaching later on because for "a ten-year-old boy" he had tested and foynd that it woyld be rather misconceived to go for ethical dialogue because he is still very "raw".[6] So it is better to follow ethical catechism first, which Kant calls "a purely moral catechism"[7] and adds that such catechism should be free from reiligious teaching in both Ground work (6:478) and lectures on Pedagogy (9:495). It is in Groundwork (6:483) and Pedagogy (9:490) that Kant thought to promote *uprightness* in children (may be this is one aspect of 'moralization' program of Kant). At a very tender age, therefore, the teacher should be left for moral indoctrination; he is supposed to impart, "virtues and values" and "analyze duties" based on concrete popular cases, which occur in ordinary life, this help in earning what is "right or not" as well. This Kant thinks is an aid to wholesome moral education at tender ahe. But I fail to understand why even if we are here talking about teaching schoolchildren; are we persistently takling about ethics teaching ? We must be sure whether we are aiming at ethics teaching or we are aiming at virtue teaching ? If what is ethics teaching in the real sense is too difficult for students then we may allow some indoctrination, sophistry and casuistry but why call it ethics teaching ? Let us think coolly. Are we really in a position to teach ethics to school students ? What is most encouraging in this regard is to find Kant saying clearly that a purely moral catechism and dialogue needs to be completely untainted by religious teachings. So he whisks off anagogy (ethical-religious teaching) no doubt at even the immature level, whereas we in India are particularly worried about doing just this in the name of "value oriendted education". But at a very tender age or at relatively mature age in schools, do we have to believe that even Socratic method would be a proper method of ethics teaching ? The question is, what do we teach through such dialogic method and why ? He says that "ethical didactics" is essentially *theoretical training* in ethics. What is this theory training ? If Kant is honest at ethical teaching, apart from what he has prononunced above (teaching virtues, values, duties, rights etc.) he has to teach by the ways he has and by means obtained (concrete popular cases) normative ethical theories, metaethical theories and applied ethical theories. Kant should find ways in schools to let very young to some mature pupils to know at least what are deontology and teleology, how are they different and then move on to the metaethical justification of theories and end up in citing cases of resolution of value-laden practial problems (in the typical classroom situation) by artificially applying any justified norm, may be deontology. All this does not happen in school ethics teaching because all this is too cumbersome for not only very young to some mature pupils, it is really tough for old guys as well. So his "theory-laden" project called "ethical didactics" is off the mark.

It is very difficult for me to understand why people like Kant are worried about teaching 'ethics' or 'moral philosophy' in schools in the name of uprightness or character building or moralization or whatever because ethics teaching is first of all not merely theory-laden, when we come to practical ethics, it is something else. Moreover, when a wholesome balanced diet in ethics is neede, particularly with regard to theories, why should we not accommodate normative and metaethical teaching, is not known to me. One good excuse is, 'we should start somewhere'. So in the schools, we better start with ethical didactics. However, we accept indirectly that the diet is after all not balanced if we take Kant literally, because he has no mention of teaching of norms and their justification, not to mention language analysis in ethics. Now 'to start somewhere' is good; ethical didactics may be at best a means to fullfledged ethics teaching, may be, it ends up in higher education (which I seriously doubt) but to call it an end, is completely unfounded. We have, in fact, not taught any ethics or moral philosophy to our school students to be very sure and very honest. Yes, we have inculcated some virturs, values, sense of right and duty and so on. May be some of them become very upright, noble, well behaved. But for sure, we do not know whether they are 'moralized' and whether or not they shall remain so in the long run when they become grown-up citizens. We are not sure whether or not some people having no chaince for participating in ethical didactics in schools are not noble enough and better moralized. Let us accept that in the name of ethical didactics, we may have started along the path of moral teaching or even moral science bereft of anagogy (or religious-ethical teaching) but we have no ethics teaching.

Kant was wise enough to realize that our school pupils may not have obtained satisfactory ethics teaching. Suddenly in Groundwork's Lehrart (6:412) he sounds Platonic and holds that all these theory teaching in ethics should be supplemented with a "practical counterpart" or what he calls, "ascetics", "in which is taught not only the concept of virtue but also how to put into practice and cultivate the capacity for as well as the will to virtue"[8] Well Kant is not as enthusiastic as Plato to prepare Philosopher Kings for us but he does not love virtuous pupils rater virtuous pupils who act likewise. He wants to see their practical wisdom in action so to say (as wanted Aristotle). Although Kant lays stress in "self practice" and not training in the Platonic or the gurukula sense, it clearly comes after moral education is give. If this be true, "self parctice" of becoming virtuous is still guided by the indoctrination said above. Yet, in doing so Kant says, teachers and parents still has something to do whenever wisdom fails or self practice flounders. Therefore, Kantian "ascetics" is another step or stage towards moralization but it cannot be teaching ethics. We cannot teach any ethics of self-practice but if we want to do so we ought to be ethically indoctrinated first, which indoctrination is "ethics wrongly-so-called". However, I would appareciate Kant for not losing sight of the evils of basic anagogy in this regard as well. He makes it very clear that even "ascetics" is not "moskish" because that is merely negative and stoical. Ethical ascetics need to be positive and epicurean in spirit. It should enable our students to not only to learn the joy of sacrifice but being healthy in mind and body, cheerful an social.

Kant's gradual realization of the inherent incompleteness of Lehrart in schools ultimately forces him to move further along the line of practical ethics, which transcends "ascetics" to cover the Socratic dialectic and the method of Church fathers in one fold. Towards the end of his moral catechism, Kant holds in the "Methodology" section that "it would be of great value to the pupils' ethical formation to rasie some casuistic questions in the analysis of every dut".[9] This is particulary needed when some "tricky" situation trouble our minds. However, Kant thinks that ethics teaching in this method does not really fall under the methodology rather under the *doctrine of elements* because it is not merely indoctrination or virtue teaching or dialogue rather something quite different. Nevertheless, he finally accepts that then ethics teaching may not be so simply stated as educating in didactics because casuistic teaching completes the course. Hence, we find how incomplete a statement it would be to say that Kantian catechism and dialogue is what is teaching ethics. In fact the entire contents of ethics may not be so simply taught to our young people in our schools and we need not forget that beyond school teaching pedagoy may enter an entirely new dimension. At a more higher level people are not only concerned about what is good or bad or valuable for himself or for other people, people feel an unique growth of ethical knowledge in them that enables to judge in tricky situations what is generally desirable. This is the basis of persons growing keenness in trifiling moral issues in society. But Kant is careful to mention that there can be no particular theory cooption because none is complete to practically judge the desirableness, rightness and goodness. The main reason being the peculiar and unforeseen circumstances for moral judgement and moral resolution. So he concludes that any art of judgement cannot be taught. This saves Kant from sophistry and ethical engineering but then in his "Anthropology from a pragmatic point of view", he holds that teacher can and should do to sharpen their student's power of judgment. But not so narrowly as to teach what rules ought to be followed rather by taking tricky cases and enticing students' mind what decision ought to be taken. Clearly, Kant has fallen back to the wise teachers to do at least three things. The teacher have to select some such "tricky" situations which becomes most important basis of teaching a part of ethics, namely, practial ethics. Next, the teacher has to arrange a gam-situation in which such select issues are discussed at length by giving suffincient liberty to the students' free play of moral reasoning. This may create an excellent atmosphere of moral debate and scrutiny of those debates. Finally, the teachers are expected in the important matter of judging the lohics of moral debates and filter out those desirable decision, which come out the analysis of the shared opinions. Interesting is to notice that peculiar gap between the teacher and the taught remains wide open, the former assuming the role of omnipotent knowledge bearer who is at his or her most important work of sophistry. The teacher has not giveb liberty to the students to gather 'tricky' issues for themselves. The teacher has not left the moral debates to come to a closure by virtue of moral agreementand the students coming forward to formulate value jugments. Neither has the teacher taught how to analyze the moral debate and what normaive theories have been at work. But if you say it is altogether impossible at school level, why call it ethics teaching ? Why not drop that term ? What great harm will be done if we, the teachers of ethics are not in the vanity of illusion that we were teaching ethics to transform character of our students and thereby moralize them ? The greatest problem is that such cauistic model of teaching is completely unfit at a much higher level, particularly in technical insitutions, in case of pre-professional teaching and in case of teaching ethics in philosophy course because a power assuming teacher rather then an able moderator and analyst can never be successful in teaching complet ethic including teaching practical ethics. In fact, for teaching practical ethics we need practical situations to collect information and in a moral debate, concerned parties should be brought together to demostrate to our students what really goes on in a real practical ethical situation. A game-situation consisting of " Students and teachers" will not do in such teaching because teaching itself has to transcend the pedagogical boundaries. We have to realize the truth that putting Kant's Didactics, Ascetics and Casuistry together, what we ultimately have is *Sophistry* in ethics teaching and application, which is again but suite for "adults only," and it is here that Kant ultimately decalres that "it is a contradiction for us to make another perfect" [10]. So Kant's project of moralization is a peculiar ethics of Didactics in schools, where we teach ethics to yound pupils, we move in to more mature one's with Ascetics and end up in "adult only Casuistry". No doubt Kant is sure that throughout he was propounding a method of "ethics teaching", which we have seen is not son in the name of Didactics or even Ascetics. In the final stage of Casuistry (depending on the two stages mentioned earlier), the only difference is that indoctrination and prefecting schem has been taken off, we have a "perfecting to freedom" scheme of ethics teaching. But in no way at both the levels of "perfecting" and "freedom" did we teach "ethics".

NOTES

1. These questions of moral education have been efficiently analyzed by Kant in "Methodenlehre" section of the "*Critique of Practical Reason*" and "*Ground Work of the Metaphysic of Morals*". Methodenlehre is clearly a section dealing with Doctrine of method (of Ethics teaching). The comprehensive source covering Critique of Practical Reason, Groundwork and On Pedagogy is The Akadmic der Wissenchaften or The Academy Edition published by Gorger Reimer (now De Gruyter), Berlin, 1902. However, I have depended on Robert B. Louden's translation (of important portions of above works). English. Readers may take a not the Louden has paginated

according to Volume Number an Page Number (as 5:1 or 6:203), the volumes and pages both arawn form the Acodemic edition. These translated portions along with Louden's analysis of what Kant called "Impure" part of Ethics could be seen in this work, *Kant's Impure Ethics*", O.U.P., New York, 2000.

2. Louden, Robert B., "*Kant's Impure Ethics*", O.U.P., New York, 2000, p 50
3. Kant, Immanual, "*Ground Work of the Metaphysic of Morals*", Acadenuc Edition, 6:478, Translation by Robert B. Louden in "*Kant's Impure Ethics*", O.U.P., London, 2000
4. *Ibid*, 6:478
5. *Ibid*, 6:478
6. Kant, Immanual, "*Critique of Practical Reason*", 5:155 Acadenuc Edition, Translation by Robert B. Louden in "*Kant's Impure Ethics*"; O.U.P., London, 2000
7. *Ibid*, 5:154
8. Kant, Immanual, "*Ground Work of the Metaphysic of Morals*",Op.Cit., 6:412
9. *Ibid*, 6:483

METAPHYSICS : THE LIFE FORCE OF MODERN SCIENCE

AYO FADAHUNSI

Introduction

Science, the cosmology underlying the mental processes of modern man, is but three centuries old. We cling to it tencaiously without knowing its precise nature. We embrace it and allow it to have a pervasive and unhindered control over our thinking. Many people have not taken time to find out the source from which this "glamorous" discipline emerged. There are a lot of false assumptions about the scientific enterprise in relation to other disciplines. Science has erroneously been accepted as the foundation of all development. It has erroneously been conceived to be the only discipline that has true solutions to the teaming problems confronting hmaity. It is the problem solver; the only valid response to life's puzzles. It is claimed to be the most objective of all disciplines and its principles and laws claim universality. Sciencem they say, is the engine of development. The scientific knowledge, they argue, is objective and veridical; it has the highest level of certainty and universality. The attention of policy makers is turned towards the promotion of science education. The other disciplines are given little or no attention. Yes, science invents, but how are the inventions of science going to be put to use ? What disciplines ensure the proper use of scientific inventions ? Must we neglect the human sciences for the positive sciences? How will science survive ? Will the world be safe if all disciplines are exterminated from human intellectuality in favour of science ? What is the foundation of science ? Will science thrive on a fragile foundation ? Whose duty is it to ensure that the foundations of science get the necessary underpinnings ? This paper examines the Messianic role of metaphysics to the development and sustencace of science. I shall argue that science is a brain-child of metaphysics - science is a parasitic plant that is growing on top of the metaphysical giant tree (science does not have direct contact with the soil that holds the nutrients). The roots of science are not potent

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enough to penetrate the intellectual soil for independent existence. I shall attempt to establish that the first principles upon which science operates are metaphysical in nature and in essence science proceeds from metaphysics and ends in metaphysics - no matter how far science travels from metaphysics, it will finally rest in the bosom of metaphysics. An aircraft may be detached from the soil for long time but it will finally land on the soil; if the pilot refuses to land that will not cause the aircraft to remain in the air- its pieces will find a lasting security on the soil. This aircraft analogy epitomises the fate of science in relation to metaphysics; whether or not scientists will admit the metaphysics gives science security and potency, the truth, just like the law of gravity which brings the aircraft down, cannot be falsified. The question of Being is recurrent and pervasive question of all disciplines.

Metaphysical Foundations of Mathematical Sciences and Astronomy

Science began when the question of Being was first realised. Some of the ancient thinkers postulated materical substances as Being while others postulated immaterial things. But it was the atomists who really laid a solid foundation for modern science. But modern scientific thought took a different trend after the medieval period. In the medieval period man occupied a mor significant and determinative place in the universe than the realm of physical nature. But for the main currect of modern thought, nature holds a more independent, more determinative and more permanent place than man, In the modern period, man's nature depends on nature. For modern metaphysics at least beginning with the works of Berkeley and Leibniz, has another more significant connecting trend than that of its epistemological interest; it is in large part a series of unsuccessful protest against this new view of the relationship of man to nature. The focus of metaphysics was some how shifted. E.A.Burtt writes that, "It is obvious, from a causal observation of the medieval and modern methods of attacking the difficulties of the metaphysics, that a radical shift has been made in the fundamental terminology used."[1] With the emerging of science, metaphysics adopts new scientific terminologies in order to be abreast with the modern intellectual wave. Burtt continues that, "instead of treating things in terms of substance, accident, and causlity, essence and idea, matter and form, potentiality and actuality, we now treat them in terms of forces, motions, and laws, changes of mass is space and time, and the like."[2] It is evident, in other words, that modern philosopher have been endeavouring to follow the ontological quest in terms of a realtively new background of language and a new undercurrent of ideas. Ultimate causality is found to be in motion of physical atoms. The atom is now seen to be the "efficient" casuse of motion of physical changes. "So far as biology has its own peculiar metaphysical assumptions, they are as yet covered up in the vagueness of its major concept, 'environment', 'adaptation' etc., and must be given time to reveal their specific nature".[3] The metaphysical assumptions of mathematics and physics are conspicuous to every keen inteelectual eye. In the pre-Newtonian period, "science was simply natural philosophy, and the influential figures of the period were both the greatest scientists and the greatest philosophers".[4] It was Isaac Newton who sturck the dichotomy between science and philosophy. I will allude to Newton a lot in this work. Isaac Newton is said to tbe the father of modern sciene; hence, it would not be unjustified that any philosopher who wants to assess the contribution of metaphysics to the development of science to priceed from the works of Newton. Henry Pemberton tells us the Newton "... has even done honour to human nature, by having extended the greatest and most noble of our faculties, reason, to subjects which, till he attempted them, appear to be wholly beyond the reach of our limited capacities."[5] George Home also writes about Newton that "it is a notion every child imbibes almost with this mother's milk, that Sir Isaac Newton carried philosophy to the highest pitch it is capable of being carried, and established a system of physics upon the solid basis of mathematical demonstration."[6] Isaac Newton, we are told by Burtt, "constituted himself a philosopher rater than a scientist."[7] He was instituting a "metaphysical ground work for the mathematical match of mind which in him had acheieved its most notable victories."[8] Newton does not give definite answers to such fundamental questions as the nature of space, time, and matter; the relations of man with the objects of his knowledge and it is just such answers that constitute metaphysics.

Nicholaus Copernicus, a renowned astronomer, uses reasoning to establish that the heavenly bodies are in pepetual mothin and that earth itself which had hitherto been considered to be the centre of the universe around which the other planetary bodies rotate, is also perpetually in motion, On what grounds did he take this view which was a revolution against the established astronomy of this day ? He must have been moved by strong reasons, and if we can locate then with precision we shall have discovered the cornerstone and foundation structure of the philosophy of physical sciences. Burtt argues that Copernicus could plead only that, "his conception throws the fact of astronomy into a simpler and more harmonious mathematical order.[9] Hence, astronomy was conceived to be one the mathematical sciences. Roger Bacon and Alfarabi give a typical list of mathematical sciences : geometry, astronomy, arithmeitc and music. If astronomy is regarded as closer to the geomertical ideal of pure mathematics, and pure mathematics is built on strong metaphysical foundations, then astronomy operates on metaphysical assumptions. "Ptolemy, for example, in the first chapter of *Almegest,* rejects the attempt to interpret the phenomena of astronomy physically (i.e.metaphysically)."[10] Copernicus tells us in *De Revoloutionibus -Orbium Coelestium,* that the sun is "seated on this royal throne, guides his family of pkanets as they circle round him."[11] But how is this system established ? Kepler tells us that it was estblished on the harmonies of mathematical principles. Kepler reinterpreted the Aristotelian formal cause in mathematical terms. Kepler is convinced that he has reached a new conception of "causality, he thinks of the underlying mathematical harmony discoverable in the observed fact as cause of the latter, the reason, as he usually puts it, why they are as they are."[12] In Kepler's opnion, a true hypthesis must be a statement of the underlying mathematical harmony discoverable in the effects.[13] In effect, to Kepler, what cibstituted the real workd is mathematical harmony. Mathematical principles are invisible entities that establish order in the universe. This conception of mathematics led "Kepler to appropriate in his own way the distinction between primary and secondary qualities."[14] Knowledge as it tis immediately offered the mind through the sense is obscure and contradictory. Some qualities of things are not real quclities. The real qualities are for kepler these caught up his mathematical harmony underlying the world of the senses, and which, therefore have a causal relation to the latter. "The real world is a world of quantitative characterisitcs only; its differences are differences of number alone".[15] If the real world is the world underlying realities beyond the report of the senses, then the real world is not physical but something metaphysical. And this real world, Kepler tells us, is the mathematical harmony of the univers. Thus, mathematics is a subject subsumed under the principles of metaphysics.

Kepler tells us that we discover mathematical relations in all objects presented to the senses: "all certain knowledge must be knowledge of their quantitative characteristics, perfect kowledge is always mathematical."[16] In this own words, "nothing can be known completely except quantities or by quantities. And so it happens that the conclusions of mathematics are most certain and indubitable."[17] We can see that Descartes and Kepler are in agreement of the indubitability of mathematical knowledge. Thus we have in Kelper the position state clearly that te real world is mathematical harmony discoverable in things. The surface qualities that do not fit into this underlying harmony do not truly exist.

Swept onward by the inherent necessity of this mathematical metaphysics, Galileo Galilei was invariably led to the doctrine of primary and secondary qualities. With Galileo the doctrine appears in a much more pronounced and developed form. Galileo, like Plato, identifies two realms: the realm of knowledge and the realm of opinion and illusion. The realm of knowledge, divine and human, is the world in which there are absolute, objective, immutable mathematical realities. The realm of opinion and illusion is that which contains objects which are relative, subjective, fluctuating, and sensible. Therefore the primary qualities to Galileo are those that inhere in the objects therein the world of knowledge whereas the secondary qualities are those of the objects of the realm of illusion and opinion.[18] Primary qualities are subjective while secondary qualities are objective. This assertion of Galileo makes his position different from that of Kepler. Kepler claims that the secondary qualities are out there in the astronomical world, like the primary qualities, only that they are not so real and fundamental.

Galileo offers new definitions as he sees need for them, and in many cases the precise meaning must be gathered from his use rather than from any specific statement. From his terminology certain important consequences follow for the metaphysics of modern science. One of such is that the mathematical study of the "how" of motion, inevitably thrusts into prominence the concept of "space" and "time". When we subject any case of motion to mathematical treatment we analyse it into certain units of distance covered in certain units of time. To trace any planetary motion in the geometry of the heavens by mathematical method means correlating the successive position of the planet on the celestial sphere with certain positions in the apparently regular succession of seasons, days, and hours. Physical space is identical with the realm of geometry, and physical motion is acquiring a pure mathematical concept. "The real world is the world of bodies in mathematically reducible motions, and this means that the real world is a world of bodies moving is space and time".[19] According to Galileo, we know nothing about the inner nature or essence of force, we only know its quantitative effects in terms of motion; "...you should say that every one knows that it is called gravity; but I do not question you about the name, but about the essence of the thing."[20] Galileo admits that there is a higher science than his science which considers the question of the essence of things.[21]

On his part, Rene Descartes argues that we can acquire certain knowledge through the mathematical method. In fact he tells us that it is only mathematics and geometry that offer genuine knowledge. In his view, the whole realm of physics might be reducible to geometrical qualities alone. Whatever the world of nature may be, it is obviously a geometrical world, and its objects are extended and figured magnitudes in motion. Descartes works out a series of sepcific rules for the application of his ideas. In these rules we find the conviction expressed that all the sciences form an organic unity,[22] that all must be studied together and by a method that applies to all.[23] This method must be that of mathematicas, for all that we know in any science is the order and measurement revealed in its phenomena; now mathematics is that universal science that deals with order and measurement generally.[24] This is why arithmetic and geometry are the sciences in which sure and indubitable knowledge is possible. They "deal with an object so pure and uncomplicated that they need no assumptions at all that experience renders uncertain, but wholly consist in the rational deducation of consequences."[25] This does not mean that the objects of mathematics are imaginary entities without existence in the physical world. Physics, as something different from mathematics, merely determines whether certain parts of mathematics are founded on anything real or not.[26] The mathematical method, to Descartesm involves two processes: intuition and deduction. He also claims that the mathematical laws are established by God, the eternal invariableness of whose will is deducible from his perfection. But how can an unextended mind come to know extended entities ? Descartes appeals to God for an answer. His answer is that God has made the world of matter such that the pure mathematical concepts intuited by the mind are forever applicable to it. Mathematics, though has relation with the physical world, the concept itself is nothing physical; mathematical principles are abstract and metaphysical.

Henry Mor identifies that there is an order pervading the entire universe. But for him, this all-pervading order and harmony in the world itself implies the existence of incorporeal substance of a yet higher order than the spirit of nature, a spirtual substance, rational, purposive, supremely worthy of obedience an worship. We need to quote him here: "We have discovered out of the simple phenomenon of motion (i.e. its ultimate cause) the necessity of the existence of some incorpoereal essence distinct from the matter."[27] This clearly demonstrates that the scientists are aware that there is a reality beyond matter nad the testimoy of the senses. This reality they cannot discover by means of the scientific method. The reality which they cannot perceive with any of the senses is metaphysical in nature. And it is this metaphysical reality that constitutes the foundation stone of any of the sciences. And I believe it is the ongoing search for this reality by scientists that leads them to discover certain principles in nature. But will they ever find this absolute reality given their method ? No finite mind can tell. More goes on to argue that "I have clearly shown that this infinite extension, which commonly is held to be mere space, is in truth a certain substance, and that it is incorporeal or spirit."[28]

Raph Cudworth is confident that a consistent pursuit of the meachanical philosophy would inevitably lead to the admission of incorpoereal beings, especially on supreme Deity. He admits that motion is not an attribute of body but it is something incorporeal. He maintains that "since no body could ever move itself, it follows undeniably, that there must be something else in the world besides body, or else there could never have been any motion."[29] The force that moves bodies is itself not a body, but something incorporeal. What the senses could perceive is the effect of this all-pervading force of motion but not the force itself. We can see that all the thinkers and scientists considered so far admit that there is mor to reality than the senses could capture; the supreme realities are beyond the ability and scope of the senses.

Newtonian Metaphysics

Let us now consider the metaphysics of Newton. Are we justified in calling Newton a metaphysician ? We are told by David Brewster that Newton was the first great positivist. Will it not be a contradiction in terms for Newton to be positivist and a metaphysician at the same time ? E.A, Burtt's response to this query needs to be quoted here : "To begin with there is no escape from metaphysics, that is, from the final implication of any proposition or set of prepositions. The only way to avoid being a metaphyscian is to say nothing."[30] Positivism itself is a metaphysical enterprise. Therefore we cannot exempt Newton from metaphysics. We shall dicover that he is one of the scientists who have made a lot of metaphysical statements in the history of science. To fail to recognise that Newton "had a most important metaphysics, is an exceedingly interesting testimony of the pervading influence, throughout modern thought, of the Newtonian first philosophy."[31] What sort of metaphysics does Newton hold on to ? Burtt holds that the history of mind reveals that the thinker who decries metaphysics holds metaphysical notions of three main types. First, he will share the ideas of his age on ultimate questions. Second, if he is a amn engaged in any important inquiry, he must have a method, and he will be under a strong and constant temptation to make metaphysics out of his method. Third, since human nature demands metaphysics for its full intellectual satisfaction, no great mind can wholly avoid playing with ultimate questions.[32] Newton's views on space and time belong in part to the first category. To the second type belongs his treatment of mass, that is, it gains metaphysical importance from a tendency to extend the implications of his method. Of the third type, are his ideas of the nature and function of the ether, and God's existence and relation to the world unveiled by science.

When we examine Newton's comments on space and time, he takes leave of his empiricism. Newton himself asserts that in "philosophical disquisitions", which apparently means here when offering ultimate characterisations of space, time and motion, "we ought to abstract from our sense, and consider things themselves, distinct from what are only sensible measures of them."[33] It is obvious that "things themselves" cannot be accounted for by the sense. This reminds us of Kant's thing-in-itself or *moumena.* The thing-in-itself is distinct from what the thing-appears-to-be. Hence, Newton is bringing in the metaphysical concept of appearance and reality. He is acknowledging that the senses are incapable of revealing to us the nature of the thing-in-itself.

Newton speaks extensively about space, time, and mass. These terms are scientific and one may expect that Newton treats them on purely scientific grounds. But Newton assigns these terms transcendental reality. He say God "endures for ever, and is everywhere present; and by existing always and everywhere, he constitutes duration and space.. He is..virtually..substantial..and by..necessity he exists always and everywhere."[34] Elsewhere Newton speaks of God as "containing in himself all things as their principle and place".[35] Can Newton be exempted from metaphysics ? Is he not engaged in transcendental metaphysics ? He has reduced space, time and mass to God. He says God "constitutes duration and space."[36] Is it his fault to leap from his purely empiricist persuasion to discuss purely spiritual realities ? I think he does so out of necessity: he needs all all-enduring entity to sustain his scientific principles he realises that there is much to reality that the scientific method cannot uncover; he realises that there is an underlying reality beyond the scope of the senses and he identifies this reality to be God. Any scientist who postulates anything beyond the physical realm is being metaphysical. And when a scientist begins to talk of metaphysical entites, then he is returning to the fortitude of metaphysics to seek refuge and security. Scientists are well aware that the material things are ephemeral and transient and if their theories are to find a lasting place in our universe, they must of necessity have transcendental entities as their suprems objects. It is only metaphysics that can give the scientist security. Hence the scientific enterprise as a whole receives vitality and nutrients from metaphysics. The scientific enterprise as a whole receives vitality and nutrients from metaphysical entities and the content of his analysis is also metaphysical. Hence, science proceeds from metaphysics and ends in metaphysics. The scientist cannot do otherwise. We can see that Newton is caught up in this metaphysical web. From what Newton has said above, it is clearly evident that when he s[eaks of bodies or of the centre of gravity of the solar system, moving in absolute space, his mind is not confined to the mathematical and mechanical bearings superficially apparent - he means also that they are moving in God- in the eternal and omnipresence of the Creator of all things. Newton suggests that electrical attraction and repulsion may be accounted for in terms of condensation and refraction of one of the hypothesised ethereal spirits. Newton goes on to say that :

> So may the gravitating attraction of the earth be caused by the continual condensation of some other such like ethereal spirits, not of the main body of phlegmatic ether, but of something very thinly and subtlety diffused through it, perhaps of an unctuous, or gummy, tenacious and spring nature... For nature is a perpetual circulatory worker..[37]

Thus Newton explains gravity in terms of a continual circulation of ethereal spirit under condensation of the earth, sun, and other attracting bodies. The ether, he is convinced, exists and provides for the propagation and increase where needed of the decaying motion in the world. He calls it a spirit and believes in the transmutations in nature. Furthermore, the spirituality of the cosmos to him is amply guaranteed by the fact that all things and their forces were originally given existence and direction by a spiritual Creator. The cosmos essentially to Newton is spiritual. So, although religion and science are fundamentally different interpretations of the universe, each, valid in its own way, "yet for Newton in the last analysis, the realm of science was dependent on the God of religion, and led the reverent mind to a fuller assurance of his reality and readier obedience to his commands".[38] Newton believes that scientific fact involves theism. "The fact has its relevant bearings on his clear and continual conviction that the world of science is by no means the whole world."[39] In the *Opticks,* Newton tells us the main business of natural philosophy:

> The main business of natural philosophy is to argue from phenomena without feigning hypotheses, and to deduce causes from effects, till we come to the very first cause, which certainly is not mechaincal; and not only to unfold the mechainsm of the world, but chiefly to resolve these and such like questions.[40]

From this passage it is evident the Newton himself was poised to look the first cause of nature. He sees the first casuse of all motion as God. The ultimate causality of facts, to Newton, is the operation of God. Gravity and the production of bodily motion by the will are all caused by God :

> To your second query I answer, that the motions, which the planets now have, could not spring from any natural cause alone, but were

> impressed by an intelligent agent.. there is not natural cause which could determine all the planets, both primary and secondary to move the some way and in the same plane, without any considerable variation; this must have been the effect of counsel.[41]

One may not be wrong to say that the Newtonian science has metaphysical underpinnings. From time to time Newton will refer to transcendental entities as being the force behind all his scientific pronouncements. Gravity itself has force directing it and this force is spiritual. In the *Opera* Newton tells us the "gravity may put the planets into motion, but without hte divine power it could never put them into such a circulating motion, as they have about the sun."[42] God is scientifically required to explain the regularity and orderliness of the universe and its motions. Without an intelligent being controlling the movement of the heavenly bodies, Newton believes, these bodies will collide or crash into one another.

Concluding Remarks

The founders of the philosophy of science were much interested in the mathematical study of nature. They tried as much as they could to avoid metaphysics entirely. But the more they tried to avoid metaphysics, the more metaphysical they become. Burtt puts this point in these words: "metaphysics they tended more and more to avoid, so far as they could avoid it, so far as not, it became an instrument for their further mathematical conquest of the world."[43] The German idealist attempts to show that the very existence of science as well as of apt, philosophy, and human civilisation generally "imply the ascription of reality and nature to mind widely different from the admitted in the traditional dualism."[44]

There has been the popular conception that science delas with facts and not with opinions or sepeculations. One scholar argues that "But in spite of this prevailing conception of science as being concerend only with facts, not opinions, science as it is actually practiced seems to be full of opinion and interpretations."[45] If what scientists obsever are facts, are the interpretations they give to those facts also facts ? Are the interpretations not their own opinion about those facts ? If they deal with facts why are there disagreements among scientists ? The disagreement among scientists is a confirmation that their individual opinion comes to bear in interpreting what has been observed. Richard Feynman, a Nobel Prize winner in physics, emphasises the importance of imagination and guessing in science. As an example of imaginative guesswork in science let us think about quarks. The existence of quarks was first hypothesised in 1963. But no scientist has ever seen as quark. But they believe that quarks exist.[46] Quarks are just invented by scientists and many other things in science are "invented" this way before they are "discovered"; gravity, molecules, genes, and the planet Neptune. Therefore, scientistis speculate before they begin to investigate the content of their thought which leads them to the laboratory to conduct experiments. Thomas Kuhn argues that the progress of science is not purely logical, and hence it cannot be isolated from its own historical context. The historical context of science is that it was initially practieced under philosophy. So Kuhn is arguing that science cannot be isolated from philosophy. Science was initially called "natural philosophy" in the seventeenth and eighteenth centuries.

In the preceding paragraphs we have been trying to argue that metaphysics constitutes the very foundation of modern science. We looked at the metaphysical foundations of mathematical science, geometry and astronomy. We realised that scientists usually postulate immaterial, spiritual entities as constituting the ultimate reality of their respective scientific field. Newton for instance invokes nonmaterial substance to be the cause of all motion. In this account of neovitalism, Carl G. Hempel says that in neovitalism, phenomena are "manifestations of underlying teleological agencies of non-physical kind, referred to as entelechies or vital forces."[47] These entelechies or vital forces are metaphysical entities. Science, like the prodigal son, will always return to metaphysics for vitality and survival. Most scientific theories have metaphysical bearings and it is only these bearings that will sustain science.

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ON CONSCIOUSNESS :
LORD BUDDHA AND EDMUND HUSSERL

SURYA KANTA MAHARANA

Introduction

The appeal of Buddhist philosophy to modern phenomenology consists above all in the possibility of providing an elaborate analysis of the states of consciousness. They can easily be interpreted as phenomenological data to which everything in the world of human experience is to be reduced and out of which the world and the cognizing subject 'I' come to be constituted.

Amongst the teachings of the Buddhism, the school of Yogācāra,[1] the doctrine of the *ālaya vijñāna* (or *ālaya*, for short) is especially unique and perplexing. The school posits a form of subjective idealism, a philosophy which had denied the reality of both the empirical world and the self. Yogācāra attempts to establish the reality of the self as consciousness in order to overcome skepticism and nihilism.[2] Yogācāra is phenomenologically interesting mainly with its theory of ālaya-vijñāna- ontologically active continuum (storehouse) to consciousness giving rise to the momentary reality of all existentially relative phenomenal constructions (prapañca). This seems to have resembalnce with the Husserlian doctrine of consciousness as 'flux' for consciousness is temporal constituting its unity as an enduring ego, as unities of immanent acts and temporal entities. In this connection, the present paper attempts to examine the phenomentological relevance of the Yogācāra School of Buddhism with the Transcendental Phenomenology of Edmund of Husserli.

In this paper, I wish to outline an additional comparison in this instance, between the ālaya vijñāna of Buddhist idealism and the "flux" of Husserlian idealism, a structure also termed 'inner-time consciousness'. In particular, I will show the extent to which one phase of Husserl's notion of consciousness can illuminate some of the theoretical problems which

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emerge from the doctrine of the *ālaya*. As we shall see, the similarities between the 'flux' and the '*ālaya*' may stem, in part, from attempts on the part of both philosophies to ground the particularity of the ego-experienced spatio-temporal realm in a primordial consuiousness of some sort.

In this paper, I will first outline the important points of the Yogācāra system, with emphasis on the doctrine of the ālaya and its mode of operation. Next, I will discuss the Husserlian notion of the flux and compare it with the ālaya in a preliminary way. The final section will be an effort at extending the metaphysical implications of the comparison to its furthest point; hopefully, some additional insights into the problems inherent in the doctrine of the alaya will result.

The Doctrine of the *Ālaya-Vijñāna*

To begin with, the Yogācāra school of Buddhism, with the aid of Western philosophical terminology, can be described as a metaphysical idealism. Its main advocates were Asange and Vāsubandhu, who, in the late fourth century, drew inspiration from earlier sutras, in particular the *Samdhinirmocana Sutra* and the *Lankāvatāra Sūtra*. The Yogācarins held that only consciousness is real. Consequently, neither the external objective world nor the "internal" egologcal world exists. Both types of reality are the result of transformations of consciousness. The various arguments which the Yogācarins set forth to defend their idealism will not be discussed here, since our interest concerns only the description of how consciousness operates.

This description begins with the positing of eight types of consciousness.[3] This multiplicity on the part of consciousness is intended to explain the different functions by which consciousness apparently "creates" the illusions of an existing spatio-temporal world and the internal ego-worlds. These eight types of consciousness are : the five external senses (vision, hearing and so on), which count as the first through the fifth consciousnesses; an internal sense-center (sixth); the "mind" or the discriminating consciousness, termed *manovjñāna* (seventh) and the *ālaya* (eight) also called store house or home consciousness, receptacla or appropriating consciousness, or seed consciousness. This eight consciousness is, however, first in the order of importance with respect to generating the movement from the oneness of true being as consciousness to the multiplicity of apparent beings within the spatiotemporal world, including, of course, the many empirical consciousnesses (human persons). It is temed the first transformation of consciousness as derivable from what might be described as the "pure" or real state of consciousness; consequently, it is the ground or condition for the operation of the other transformations of consciousness which take place in the functioning of mind (the second transformation) and the six senses (the third transformation).

What, then, is the *ālaya-vijñāna*, the eighth type of consciousness? Asanga in his *Mahāyānsamgraha* summarizes its nature as follows :

"All actions (*dharmas*) which are blemished. lodge in it in the quality of fruit and.. it itself lodges in these dharmas in the quality of cause (*hetubhāvanā*)..."[4] The *ālaya*, then, has to twofold character, it "receives" and "stores" the fruit of actions and perceptions, the *dharmas*, in the form of seeds, and it causes further actions and perceptions on the basis of these seeds. In short, it is both caused by and causes *dharmas*.

We may note at this point that this dual character of the ālaya answers one problem which besets any idealism; if neither enduring spatio-temporal objects nor enduring subject-egos exist, how can the regularity, consistency, and continuity of our experience be explained ? The Yogācārins claim that these characteristics of experience flow from the causal force of the seeds on the *ālaya*, seeds which regularly "perfume" the other consciousnesses in a specific way which gives rise again and again to the same manifestations (for example, the apparently subsisting trees, birds, and so on). Thus my experience of myself as an enduring subject arises regularly because the *ālaya* receives the fruit (effects) of a mind (*manovijñāna*) which illusorily posits my self as an enduring entity. This illusory belief in turn is caused by the seeds of the ālaya operating on the mind. The interplay of reciprocally affecting ālaya and manas perpetuates the belief in an enduring self. And the perpetuation of the belief leads to the assumotion of the "real" existence of a self which is the object of that belief. In the same way, the experience of enduring physical objects in an enduring spatio-temporal world derives its continuity and consistency from the mutual causation betweenj the ālaya and the other seven types of consciousness.

So far, the doctrine of the *ālaya* appears to cohere well with the basic idealistic position of the Yogācāra school. However, certain difficulties arise upon closer investigation. First, what is the proper character of the *ālaya* ? To be consistent with their adherence to the no-soul doctrine of the Buddha, the Yogācārins cannot view it as an enduring soul like "container" which holds the constantly passing seeds. On the other hand, they do not want to claim that the *ālaya* is equivalent in structure with these seeds. The latter interpretation would result in a continuous defilement by the *non-ālaya* consciousnesses causing the seeds, thus rendering impossible the attainment of *Nirvāna*, that pure state of consciousness defined by the cessation of such defilements.[5]

Asanga does not resolve this problem. He states only : "These seeds are substantially neither different from nor identical with the receptacle consciousness (*ālaya-vijñāna*)."[6]

But this statement merely reiterates the preceding position in an ambiguous and paradoxical manner: the seeds cannot be different from the *ālaya* because then the *ālaya* would be an enduring substratum underlying the momentary seeds, all of which are distinct from it. On the other hand, the seeds cannot be equivalent to the *ālaya* because then no consciousness free from the defilments of these seeds would be possible. But if the ālaya can be characterized in neither of these ways, how then can it be characterized ? A second and related difficulty concerns the predication of number to the *ālaya*, that is, is it one or many ? The texts themselves do not resolve this issue, although certain indications are available. There are two predominant interpretations on this point. First, the *ālaya* is one, but "materializes" at many points as individual consciousnesses which are empirically but erroneously viewed as individual ego-centered persons. Second, the ālaya is many, that is, each individual person has an *ālaya* as one of the eight consciousnesses which make up individual. As we can see, the latter interpretation emphasizes the psychological descriptive aspect of the Yogācāra doctrine, while the former highlights the metaphysical or ontological aspect. The psychological view was taken by Hsuan-Tsang, a seventh-century Chinese follower and interpreter of the Yogācāra school. He notes in his commentary on Vasubandhu's Thirty Verses, the Ch'eng Wei-shih Lun: "The word'consciousness' generally expresses the idea that all human blings each 'consciousness", including the *ālaya* consciousness.[7] This interpertation militates against any monistic tendencies of the doctrine of consiousness-only, which at times seems to posit some single ultimate reality.

For Hsuan-Tsang, such a single ultimate could not even be "True Thusness" (tathāgatatā), as many Buddhists describe the state of absolute reality reached in Nirvāna, since Hsuan-Tsang claimed that even tathāgatatā is "possessed" in an individual way by each human being. Only by inferring that True Thusness is one and the same in each individual (thus dissolving any and all individualty) could one arrive at a monism on Hsuan-Tsang's interpretation of the *ālaya*. It might be noted, however, that if one takes into account the Buddhist penchant for confounding the law of contradiction, a monistic position might be feasible by claiming that Thusness is neither one (because each human being can possess it) nor many (because it is the one ultimate reality). Hsuan-Tsang might then be interpreted as discussing merely one common aspect of the reality of the *ālaya* and Thusness when he attributes both of them to individual persons. The alternative interpretation of the number of *ālaya* bypasses a possible collision with the Yogācāra monism by asserting that the *ālaya* is one, but that it differentiates itself into various ego-centers, which rise and fall like the waves of the ocean. Also, like the waves of the ocean, the individual ego-centers are neither wholly distinct from nor wholly identical with the *ālaya*. In this metaphysically accented view, the *ālaya* acquires a more fundamental role than it has in the preceding psychological interpretaion. Here the ālaya functions as the ground for the individual ego-centers and, consequently, as a common ground for the consistency of world-experience undergone by the majority of individual human subjects, specifically the continuous yet (for Buddhists) illusory belief engendered by the *manas* consciousness that a substantial world with substantially enduring ego-subjects exists.

This interpretation of the ālaya would, to a certain extent, accord with the Yogāçāra doctrine of the triple nature of reality: reality is one (monism), but appears as either perfected, dependent or imagined (*parinspana, paratantra, or parikalpita*).[8] As perfected, reality is ultimate reality or "Thusness" (tathatā). Thus the ālaya in its perfected state is pure consciousness, totally undifferentiated and undefiled.[9] It is this state which a supposedly existent individual person would reach upon attaining *Nirvāṇa*; *Nirvāṇa* is the "return" to the one, the cessation of the wave on the surface of the *ālaya*. The *ālaya* in its dependent nature, however, is a continuously defiled (by mind and sensations) and appearance-causing consciousness, which "causes" the totally unreal imagined nature of consiousness, as an empirical subject living within an object-laden world. Mind ans sensations, alone with subjects and world, are reality in its imagined state in fact, of course, unreality mistakenly seen as reality.

One problem which the unitary view of the ālaya must face is how an ultimately unitary ālaya is differentiated into a plurality of different but "con-current consciousnesses or ego-subjects. If consciousnesses is an ever-flowing single stream, as the Yogācārins would maintain, can it serve to ground the diversity of the dharmic series which constitute the individual egos' consciousnesses ? As one *ālaya*, it should apparently give rise to simultaneous ego-subjects which are the same and which lack all distinctions. This is obviously not the case, for the many ego-subjects are seemingly unique in the (illusory) characters they have, the (illusory) actions they perform, and so on. I myself, as a series of momentary *dharmas*, am distinct and different from you. Consequently, the unitariness of the *ālaya* must be interpreted in a way which can account for the divergences in its "waves".

Let us look more closely at the momentariness of the *ālaya*. As pure flowing consciousness, the ālaya is surely beyond description. The moment we say that it flows, we are leaning toward an entitative image in which we see some thing which constantly changes. Yet this is precisely not the nature of pure consciousness. In apprehending pure consciousness as one, we might imagine again something which is immutable and possibly lacking in all determinations. But, of course, the *ālaya* is not an entity in any sense of substantiality, either as an underlying substrate of changes or as an immutable substance with a quasi-divine nature. Yet constant change and immutable indetermination both seem to be characteristics of the *ālaya*(although they are seemingly incompatible without a grounding substance theory). Can non-entitative consciousness be both constantly changing in its determinations and immutably indetermined ? For that is precisely how we want to interpret the *ālaya*in its pure reality. We would like to say the *ālaya* is both momentary and unitary, since as unitary it can nonetheless ground the multiplicity of ego-subjects in the sense that in its dependent nature, it contains all the possible seeds which can give rise to such "defile" consciousnesses.

There is another related difficulty which follows from the above argument, that is, the seemingly temporal character of the *ālaya* especially as it relates to the problem of the relation between the *ālaya* and its seeds. This character appears most strongly when the Yogācārins employ the image of a stream or an ocean with waves to describe the nature of the *ālaya*. For example, Vāsubandhu notes in his Thirty Verses (the Trimsikā): the ālaya"is always flowing like a torrent..."[10] The image ably emphasizes both the persisting existence and the non-substantial charateristics of the *ālaya*. Like a stream or torrent it continuously flows on, or, perhaps more accurately, there is a continuous flowing (not some thing is continuously flowing). Also, like the stream, it undergoes continuous change or transformation (recall Heraclitus' river). From one perspective, such transformation can be seen as the result of the constant change over of the momentary seeds "carried" by the ālāya-stream. But, as noted earlier, a clear cut equivalence does not exist between the *ālaya* strem. But, as noted earlier, a clear cut equivalence does not exist between the *ālaya* and its seeds. The *ālaya* is not momentary simply because each of the seeds is, yet in each of "its" moments it is causing and being caused anew. From another perspective, the change of the *ālaya* could be accounted for by its nature as a flow: a flowing is neve the same, quite apart from whatever it carries along with it. But, as mentioned earlier, the *ālaya* cannot be completely separated from its seeds; so too neither can its changeability be completely separable from the momentariness of its seeds.

Leaving aside the recurrent dialectical imagery of this description of the *ālaya*, let us look more closely at the difficulty which I termed the "seemingly temporal" character of the *ālaya*. A superficial understanding of the "flowing" image of the *ālaya* might lead one who is familiar with Western metaphysics to interpret this image as giving the *ālaya* a similarity to, if not an identity with, time. For the Westerner, change implies duration which in turn implies a length of time which meansures this duration. But for the Yogācārin, time is as unreal as the object which apparently subsists through change within this time. Any empirical notion of time, of clock-time, the time of the universe and the movement of its bodies (charted in years, months, days, and so forth), is rejected as a construct of mind (*manas*). Consequently, the *ālaya* cannot be termed temporal in the usual sense; nor can it be termed eternal, if eternity means endless endurance through time. If the *ālaya* is in any sense temporal, the nature of this characteristic must be elucidated by means of a more primordial sense of time and / or temporality.

I would now like to take note of the fact that the apparent tension, if not contradiction, between a plurality of momentary determinations and an immutably indeterminate unity can be better understood if we introduce a perspective on time foreign to that of Yogācāra thought as such. This perspective, the time of absolute consciousness, is found in Husserlian phenomenology. We will now outline the relevant features of this notion of time.

Husserl's Doctrine of Time as 'Flux'

The core of Husserl's theory of inner time-consciousness is found in his 1905 lectures on 'Towards the Phenomenology of Internal Time-Consciousness'.[11] In these lectures Husserl approaches the discussion of time from the point of view of experience. Time is not merely a scientifically objective topic, something apart from the experiencing subject. Experienced time is the time of living experience (*Erlebniss-sensings, thinkings, willings*) of our subjective inwardness, rather than the time of objects, of a physical universe subject to putative natural laws. Experienced time, however, cannot be equated with what might be terned a factual psychological time, for example, a person's subjective "measurement" of a duration of time, the "feeling" that "this hour went faster than the last hour". Husserl's more radical position on time presents a point of view which can be applied to the Yogācāra philosophy, despite its rejection of time as an objective measure of passing moments.

For Husserl, inner time is most fundamentally consiousness self-constituting itself. At this level, inner time is aware of itself in its own conscious flow and, consequently, generates itself and all experiences as temporal. Husserl names this consciousness the "flux" to emphasize its primordiality. This consciousness of inner time is both multiphased and synthesized as a unity many yet one. The former characteristic refers to a composition of many phases of the flow, for example, consciousness of the present monent, of a past moment as just past (called "retention"), of a future moment (called "protention").[12] However, these different phases do not comprise a series of really discrete moments, for all phases are fundamentally interconnected. Inner time-consciousness has a synthetic unity which derives from the fact that each phase occurs "all-at-once" within the consciousness of the Now. This occurrence all-at-once is within a living present which Husserl distinguishes from the present of the Now-point. The brief disucussion of the preceding paragraph illustrates the difficulty in describing a phenomenon which in some sense both is and is not temporal. As husserl notes, "names are lacking" for the absolute charactersitics of the flux of inner-time consciousness, even though we often speak of it in terms which are normally used to describe the constituted stream of experience rather than the constituting flux. As we have seen, the Yogacarin avoids this problem of description by the use of metaphorical descriptions which lack specific temporal terminology, but which imply some type of non-serial temporality (for example, the *ālaya* is like an ocean with its waves or a stream with its rippling current). Husserl naturally avoids such images, but the nonetheless attempts to describe the flux: it is, for example, not an object, a process, or any kind of thing which alters or persists. The flux is not in time, is not itself temporal in the usual sense. Since the flux is not in time, it is said to be "all-at-once", a phrase which itself is subject to the misinterpretation inherent in using "time" talk. Also Husserl equates the flux with absolute consciousness. Because of this equivalence of the flux with absolute consciousness, the flux cannot be considered a metaphysical principle independent of consciousnes. The flux is consciousness taken in its absolute sense. Therefore, in this important sense, though difficult to understand yet, it parallels the Yogācārin view of pure consciousness as the absolute or perfected reality.

The concept of "all-at-once" is based on the notion of the "living present", a hightly complex concept in Husserl's later philosophy of time.[13] For our purposes, the living present may be described as the active focus of the self-differentiation of absolute consciousness (also termed transendental subjectivity), encompassing both an undifferentiated beginning and the differentiations of the streaming flow of inner time (present consciousness, retention and protention). Flux as all-at-once is the living present, a unified synthesis of differentiated "moments."

This concept of the flux is crucial for our interpretation of tha alaya as unitary yet momentary, undifferentiated yet distinguished. I will return to this interpreation in the next section, but now I would like to draw several parllels betwenn the constituting character of the flux and the "causal" character of the ālaya. First, in Husserl's phenomenological discussion of the constitution of the ego, we may differentiate two meanings of "ego" and "constitution". (1) the constitution of an empirical ego (psycholohical ego) as a temporal and historical being, and (2) the constitution of the transcendental ego as absolute consciousness. The first type is dependent on the second type, just as for the Yogācārin the appearance of a mundane ego is dependent on the *ālaya* consciousness. Furthermore, the constitution of the transcendental ego is the self-constitution of the flux.[14] And although the Yogācārins have no parallel to the concept of self-constitution, their Absolute would at least be independent in its being, a concept analogous to Husserl's notion of self-constitution.

Second, for Husserl the flux is not simply a non-personal stream of experience; it is personal, it is always someone's ego. This ego or transcendental subjectivity (not to be confused with the empirical ego) serves as repository of its past in the sense that the ego both "has" its living experiences and retains them in retentional modification within its "unconscious" (the repository of experiences and their contents which are no longer held in retentional modifications). The ego also "has" the future as its protentional horizon, as the horizon of its possibilities. The ego in this sense is termed "monad", "exhibiting its own concreteness by constituting itself as a being with temporally constituted experiences which stretch in two directions from the present. And it lives these experiences all at once as the living present. At first sight, the transcendental ego seen from this perspective may appear as a substantial entity quite unlike the Yogācāra *ālaya*. But, for Husserl, the transendental ego is not a substance in the usual sense; its "concreteness" is defined within the flash-point of the living present, and consequently it does not require any characteristics proper to a substantial entity. Again, the Yogācārins use metaphor to make out a description detailing how the non-substantial alaya is affected by and affects non-relities: it stores seeds, it is perfumed by seeds, and so on. Yet for both Husserl and the Yogācārins there remains the difficulty of relating a basically non-substantial being with seemingly "substantial" characteristics.

Third, and finally, in relation to the absolute consciousness as monad, Husserl's description of the workings of inner time-consciousness includes the element of genesis. In the post-Ideas writings, Husserl frequentlu states that sense (*Sinn*) has a "genesis" or "history".[15] Sense is the corelate of constituting consciousness; it is the object -as-experienced. To say that sense has a sense-genesis is to indicate a "pointing back" or reference to something more original and consequently something "prior" to the sense under investigation. This prior element is the act(s) or *noesis(es)* which originally constituted that sense.[16] In other words, no object of consciousness occurs isolated from previous experience. At another point Husserl describes the genesis of a judgment as "its intentional motivational foundations."[17] The notion of genesis as foundation indicates that the presently investigated sense points back to something original which serves as a foundation for the current sense. This foundation must be present in the structure of the ego for the current sense to be constituted at all; consequently, it is a necessary condition for the current sense and its constituting act(s). This characteristic of the genetic structure of the monad recalls the necessary presence of particular seeds in the alaya in order that a particular mode of consciousness and/or object may appear. The seeds "perfume" the *ālaya*, and as a result of this perfuming the *ālaya* causes certain phenomena. The alaya, then, in its causal character, is comparable to genesis as foundational for sense-constituion.

But genesis as foundation is not merely a condition for the current sense; it is also "motivational" (as mentioned in the earlier quotation) in the sense that it provides an impulsion or inducement toward the production of the new, founded sense. The term "motivation" gives genesis a further significane, since the term implies that the foundation is not only a necssary precondition for, but also an affective element in, the constitution of the current sense.

This motivational aspect thus parallels the Yogācāra emphasis on the mutual causation between the *ālaya* and its seeds. The seeds of past actions "fall" into the *ālaya*, perfume it and consequently "motivate" the *ālaya* to cause further actions conditioned by the past actions. Both the theory of the *ālaya* and of genesis can account for the consistency within the empirical ego and its experiences of the spatio-temporal world; While inner time-consciousness gives the formal conditions for the temporal existence of the ego, both empirical and transcendental, the notion of genesis explains the determinations of the material and concrete aspects of living experience. Similarly, the concept of alaya as pure flow provides the formal grounds for the (apparent) existence of an empirical ego and the spatio-temporal world and also explains the origin of the concrete, consistent experiences within this world.

Final comparison and conclusion

At this point we can state the explanatory value of Husserl's doctrine of inner time for an interpretation of the *Yogācāra ālaya vijñāna*. Since for Husserl transcendental consciousness is not "in empirical time, it is not itself empirical, nor are its concertions within the genetic structure empirical. Thses structures explain not only the source of empirical time but also the development of concrete empirical ego. In this way Husserl's doctrine parallesls that of the *ālaya*, which is the cause of the consciousness of a "real" world and of differentiated empirical ego-subjects experiencing themselves as existent in that spatio-temporal realm.

Thus far, however, we have mentioned only the surface parallels between flux and *ālaya*. The Yogācāra doctrine does not specifically introduce the notion of a quasiteporal characteristic for the *ālaya* similar to the inner-time of Husserlian transcendental consciousness.[18] It is at this point, then, that the Husserlian analysis may be helpful in understanding and expanding the *ālaya* doctrine, specifically for the clarification and resolution of the problem raised at the end of section I. Clearly the *¢laya* is not "in" empirical time reality cannot have the non-real characteristic of empirical temporality. But, as noted earlier, the descriptions of the *¢laya* possess a time like character. Could this character be understood as something similar to the inner-time consciousness in Husserl ? By such a comparison, we may discover that at least some, although not all, of the ambiguousness of the *ālaya's* character will be dispersed. Husserl's explanation of inner-time consciousness would be most relevant to the problem of whether the *ālaya* is one or many. If we consider the flux as the core of the self-constitution of Husserl's transcendental consciousness, we find a single undifferentiated beginning which grounds all differentiations of sense constituted by it as transcendental consciousness. How does Husserl allow for this movement from an undiffemtiated oneness (the flow) to differentiated multiplicity ? The answer to this question clarifies the nature of the flux, to the extent that clarification is possible for being with "no names". The flux, although resembling an undifferentiated oneness, has a double relaity. Husserl attempts to capture the nature of the flux by terming it the "living present." This living present is characterized as both standing and streaming; Husserl notes in an unpublished manuscript from

1932 that 'the primordial level of consciousness is a stream, which stands and streams, which streams in a constantly invariable form, so that, however.. in the streaming a doubled present constitutes itself the present of the respective worldly perceiving and the present of this perceiving simultaneously with the retentions and protentions of the perceptions just-past and just-coming.'

Transcendental consciousness is basically a double constitutive reality. Within its oneness as living present, it differentiates itself in the twofold character of standing and streaming. Such a differentiation grounds all further differentiations, both on the level of the primal temporality of conscious experiences and on the empirical, and founded level of "objective" temporality (the empirical ego and its experiences). Thus, its oneness is at once one and many. If such a characterization is allowed, an ontological source of the constituted world of experience emerges which overcomes the difficulties posed by the problem of the one any the many with respect to the *ālaya*. In applying this characteriazation of the temporality of transcendental consciousness to the *ālaya*, we could continue to maintain the Buddhistic emphasis emphasis on a single rationally inexplicable source of Being, while giving some concreta analysis of the nature of this source as a source of multiplicity.

The *ālaya* can thus be seen as the living present which is not an empirical flow, but exists as the source of all present empirical egos and their supposedly contemporaneously present empirical worlds. The streaming charactersitic of the living present adaquately reflects the nature of the *ālaya* as flowing. The standing characteristic emphasizes the atemporality (or, as Husserl puts it, the quasitranstemporality) and unity of the *ālaya*. It also allows for the unitary nature of all differentitions which flow causally from the *ālaya*, for example, the fact that all empirical ego-subjects seem to experience basically the same ("non-real") empirical world. By using the dialectical character of the living present, we could thus explicat the *ālaya* as one reality which by its nature is fundamentally differentiated into a multiplicity of temporal modes. Form this primal differentiation, the higher level differentiations into the multiplicity of empirical ego-subjects would follw, all sharing the same ontological source, yet not all sharing teh same emporocal experiences or *dharmic* characters. Each "wave" of the *ālaya* would echo would echo only certain aspects of the total range of higher level differentiations (in Husserl, gentic contents). Thus, the *ālaya* inits dependent or apparent nature is many; in its true reality, one.

To sum up the discussion, the living present is both standing and streaming. As standing, it is the One, the Now through which flow all differentiated living expereiences and their contents (my experience of the spatio-temporal world and of myself as existing empirical subject, and so forth). As streaming, it is the Many, self-differentiating itself into a multiphased stream of temporality which occurs all-at-once, thus seving as source for the multiple experiences within empirical time and space. Although Husserl does not equate the constitution by transcendental consciousness with a complete costitution of all beings in their being (in a meataphysically committed sense), the use of his analysis to explicate the Yogācāra *ālaya* would be combined with a metaphysical claim namely, that the *ālaya* in its true or perfected state as Thusness is the source of being (real and unreal) of all other entities. This comparative effort, while not fully integrating the *Yogācāra ālaya vijñāna* into the phenomenological framework, nevetheless can supplement the discussion of the *ālaya* and perhaps obviate some of the difficulties inherent in its interpretion.

NOTES

1. The Yogācāra school includes Asanga and his follower Vāsubandhu, supplemented by elements from earlier idealist Sūtras.
2. A.K.Warder, *Indian Buddhism* (Delhi: Motilal Banarsidass, 1970).
3. See Vāsubandhu, Trimsikā, v. 2, Wing-Tsit Chan (tr.) "The Thirty Verses on the Mind-Only Doctrine" in *A Source Book in Indian Philosophy*, (ed.) S.Radhakrishnan and C.A.Moore (Princeton, New Jersey: Princeton University Press, 1957), p. 334.
4. Vasubandhu, Trimsika, vv. 2 and 5, *A Source Book in Indian Philosophy*, p.334
5. In most Buddhist literature, Nirvana is the term which refers to the goal of human existence, the attainment of unity with the one true relity. What is actually attained in this state is open to interpretationg; for example, it could be a complete cessation of activity or the achievement of the purest activity.
6. *The Lankāvatarā Sūtra*, Ch. 6, v. 82, (tr.) D.T.Suzuki (London: Rout ledge & Kegan Paul Ltd., 1932), p. 190.

7. Wing Tsit Chan (tr.) " Treatise on the Establishment of teh Doctrine of Consciousness - Only" in *A Source Book in Chinese Philosophy,* (ed.) W. Chan (Princeton, New Jersey: Princeton University Press, 1963), p. 392.
8. See *Samdhinirmacana,* Ch.6, vv. 3-6, pp. 188-189; Asanga, Ch. 2, v. 1. p. 87; Vasubandhu, *Trimsika,* vv. 20-21, *A Source Book in Chinese Philosophy,* p.336.
9. Ashok Kumar Chartterjee, *The Yogacara Idealism* (Varanasi : Bhargava Bhashan, 1962), p. 124:
10. *Lankāvatarā Sūtra,* Ch. 6, v. 81, *op cit.,* p. 190.
11. J, Churchill. (tr.) *The Phenomenology of Internal Time-Consciousness* (Bloomington, Indian: Indiana University Press, 1964), p. 98.
12. Husserliana, vol. 3 : Iden zu einer reinen Phanomenologie undphanomenologuschen Philosphile, Book I, ed. W. Biemel (The Hague: M. Nijhoff, 1950), p. 199.
13. Edmund Husserl Archives, Cologne, West Germany. See Klaus Held, Legendige Gegenwavt (The Hague: M. Nijhoff, 1966).
14. David Carr, (tr) *The Crisis of European Sciences and Transencdental Phenomenology* (Evanston, Illinois: Northerwstern University Press, 1970), p. 172.
15. D. Cairns (tr.) *Formal and Transcendental Logic* (The Hague: M. Nijhoff, 1969), p. 207.
16. *Ibid.*
17. *Ibid.,* p. 218.
18. Kenneth, K. "Time and Temporality - A Buddhist Apporach," *Philosophy East and West* 24, no 2 (April, 1974): 171-179.

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DECONSTRUCTION ICON : DERRIDA

R. P. Singh

Derrida's Quest

In an interview in Paris in 1981, Derrida has said, "My philosophical formation owes much to the thought of Hegel, Husserl and Heidegger."[1] Derrida hails originally from the phenomenological movement of Husserl, Heidgger and Levinas and it is within and around this particular frame work more than anything else that his thinking has evolved. Derrida's 'deconstruction' questions such notions as the Idea of Plato, the Pure Thought of Aristotle, the *Cogitio* of Descartes, the Transcendental Consciousness of Kant and the *Geist of* Hegel.

Derrida on Modern Western Thought

"I have never been very happy with the term 'modernity'. Of course, I feel that what is happening in the world today is something unique and singular. As soon, however, as we give that label of 'modernity', we inscribe it in a certain historical system of evolution or progress (a notion derived from Enlightenment rationalism), which tends to blind us to the fact what confronts us today is *also* something ancient and hidden in history. I believe that what 'happens' in our contemporary world and strikes us as particularly new has in fact an essential connection with something extremely old which has been covered over (*archidissimule*) so that the new is not so much that which occurs for the first time but that 'very ancient' dimension which recurs in the 'very modern'; and which indeed has been signified repetitively throughout our historical tradition, in Greece and in Rome, in Plato, in Descartes, in Kant, etc. No matter how novel or unprecedented a modern meaning may appear, it is never exclusively *modernist* but is also and at the same time a phenomenon of *repetition*. And yet the relationship between the ancient and the modern is not simply that of the implicit and the explicit. We must avoid the temptation of supposing that what occurs today somehow pre-existed in a latent form, merely waiting to be unfolded or explicated.

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Such thinking also conceives history as an evolutionary development and excludes the crucial notions of rupture and mutation in history. My own conviction is that we must maintain two contradictory affirmations at the same time. On the one hand we affirm the existence or ruptures in history, and on the other we affirm that these ruptures produce gaps of faults (*failes*) in which the most hidden and forgotten archives can emerge and constantly recur and work through history.. The difference between our modes of thought does not mean that I or other 'modern' thinkers have gone beyond Plato.."[2]

Derrida's Deconstruction

With the above understanding of the history of Western thought, Derrida has this to say about deconstruction :

"A Sowing that does not produce plants, but is simply infinitely repeated... a semination that is not insemination but dissemination, seed spilled in vain, an emission that can not return to its origins in the father".[3] In *Positions,* he remarks, "In the final analysis, dissemination means nothing and can not be reassembled into a definition..."[4] and therefore deconstruction is not a theory, not a position, not a critique, not a technique, "not a method and can not be transformed into one."[5] With deconstruction, Derrida tries to transcend the binary oppositions like truth and falsehood, reality and appearance, good and evil, etc. With deconstruction, Derrida dismantles these conceptual oppositions. It is the logic of *differance* that is the most operative term in Derrida's deconstruction. Richard Kearney, in a Prefatory Note on Derrida, writes, "Derrida was working out his central notion of the irreducible structure of *differance* as it operates in human consciousness, temporality, history, and above all in the fundamental and overriding activity of writing (L'e' criture). By means of this concept of *differance* - a neologism meaning both to 'defer' and 'differ' ..., Derrida proposed to show how the major metaphysical definitions of Being as some timeless self-identity of presence (e.g. *logos*...), which dominated Western philosophy from Plato to the present day, could ultimately be 'deconstructed'. Such deconstruction would show that in each instance difference *precedes* presence rather than the contrary.."[6] In *Positions,* Derrida writes, "... *differance* refers to the (active and passive) movement that consists in deferring by means of a delay, delegation, reprieve, referral, detour, postponement, reserving. In this sense, *differance* is not proceeded by the originally and invisible unity of a present *possibility that* I could reserve, like an expenditure that I could put off calculatedly, or for the reasons of economy. What defers presence, on the contrary, is the very basis on which presence is announced or desired in what represents it, its sign, its trace..."[7]

Derrida and Western Metaphysics

Derrida develops this problematic in order to question the system of Western metaphysics as a whole into a question. In his Exergue : or 'outwork' to *Of Grammatology,* Derrida focuses attention on a triple movement of our logocentric epoch :

"1. The concept of writing..2. The history of (the only) metaphysics, which has always assigned the origin or truth in general to the *logos*: the history of truth, of the truth of truth, (which) has always been.. the debasement of writing and its repression outside 'full speech'. 3. The concept of science or the scientifically of science - what has always been determined as logic."[8]

Derrida and *Logos*

In his celebrated works *Positions* and *Of Grammatology,* Derrida has acknowledged overwhelmingly the significant place of the *logos* in his own 'theory of sign' on many occasions. Derrida has said, "The problematic of the sign derives from a fundamental logocentrism, a philosophy of consciousness of the originary subject". The notion of sign occupies the central theme of Derrida's writings. In his analysis of the history of the notion of sign in *Of Grammatology,* Derrida attempts to show that "...the very concept of the sign has always depended upon, or been determined by that fundamental metaphysical opposition: the sensible and the intelligible. His various treatments of the sign work shows that the metaphysical tradition has always treated the sign as a transition or bridge between these two moments of presence. Because the sign could only function as a provisional reference between presence in the form of the object (the sensible) and the presence in the form of self-presence (the intelligible)..."[9] With the logic of *differance,* Derrida first decenters the *logos,* then he marginalizes the *logos* and finally he rejects the *logos.*

"The sign unites an independent 'representation' and 'intuition', in other words, a concepts (signified) and a sensory perception **(signifier),**"[10] but in logocentric systems, Derrida charges, there is a kind of 'separation' or 'disjoining' which, by dislocating the 'intuition', opens the space and plays off signification.

Derrida, in fact, takes up Kantian project - to show how the a temporally true can be contained in a spatio-temporal vehicle, regularize the relation between man and what man seeks by exhibiting its 'Structure', freezing the historical process of successive reinterpretations by exhibiting the structure of all possible interpretation.

Derrida 'On Writing'

On 'writing', Richard Rorty says, "Writing is an unfortunate necessity; what is really wanted is to show, tò demonstrate, to point out, to exhibit, to make one's interlocutor stand at gaze before the world. The copy theory of ideas, the spectator theory of knowledge, the notion that 'understanding representation' is the heart of philosophy, are expressions of this need to substitute an epiphany for a text, to 'see through' representation."[11]

Consider the following passage :

"There is therefore good and bad writing : the good and natural is the divine inscription in the heart and the soul; the perverse and artful is technique, exiled in the exteriority of the body. A modification well within the Platonic diagram: writing of the soul and of the body, writing of the interior and of the exterior, writing of the conscience and of the passions, as there is a voice of the soul and a voice of the body... The good writing has therefore always been comprehended. Comprehended as that which had to be comprehended: within a nature or a natural law, created or not, but first thought within an eternal presence. Comprehended, therefore within a totality, and enveloped in a volume or a book. The idea of the book is the idea of a totality, finite or infinite, of the signifier. This totality of the signifier cannot be a totality, unless a totality constituted by the signified pre-exists it, in its ideality. The idea of the book, which always refers to a natural totality, is profoundly alien to the sense of writing.. If I distinguish the text from the book, I shall say that the destruction of the book as it is now underway in all domains, denudes the surface of the text."[12] Writing is always historically situated, emerging at a particular time and place, but it should be read at the same time in terms of history because to write is to supply a context with all that is necessary for its operations as well as that is necessary for its erasure, the reopening of context that would close down the question of the relation even as it works, and protect the present from the past. Derrida's historical writing is located in *differance* : between past and present, determination and under-determination, in the space traced out and traversed by the supplement as excess, therefore between binary poles or on the 'fourth side' of the triangle. *Differance* as history has the effect, in fact, of reopening the present to the past, situating each in terms of the other.

Derrida on Language and World

What is the relation between the language and the world ? Derrida does not come right out: "To this one can only reiterate that Derrida is in the same situation in regard to language that many of us secularists in regard to God. It isn't that we believe in God, or don't believe in God, or have suspended judgement about God. It isn't that we know that God is a cognitively meaningless expression, or that it has a role in a language-game other than the fact stating, or whatever. We just regret the fact that the word is used so much. So is this the case for Derrida with the vocabulary of Kantain philosophy. His attitude towards centuries of worry about the relation between subject and object, representation and the real, is like the Enlightenment attitude toward centuries of worry about the relation between God, man, faith and reason.[13]

Besides the above, Derrida's lifework is full of philosophic issues. Towards the end of his life, he, along with Habermas, was actively involved in the campaign against the second war of Iraq. I cannot go into the details of the debate but I'll definitely try to summarize some of the issues of the debate and with that I would like to close this paper. Derrida raises the question -What is U.S.A.? And the answer is - U.S.A. is Europe's own imagination. Now the question arises - what is Europe ? This is an important normative question. The answer is that Europe fought its battle against the mediaeval orthodoxy, inquisition, blind faith and religious bigotry. The battles laid the basis of reason, secular separation between church and state, Treaty of Westphalia (1648), democracy, freedom, human rights and much of modern life two to three hundred years ago. The revolt against mediaeval Christianity during modern times was a revolt of the puritans against the papacy, and then the rationalists against the purists that produced revolutionary changes in Europe and North America. Medieval Christendom was a closed shop of superstition and orthodoxy. By contrast, an ancient India, China and even Islam have the notion of independent thinking (*ijtihad*), systems of rational philosophers and social conduct in the marrow of religious beliefs. The struggles between orthodoxy and progressive innovation, historicism and episodic history, totalitraianism and pluralism, unified world order and fragmentation, etc. have been constant themes of philosophic discourse.

Kierkegaard has once said that to the extent he ceased upon mentor's truth and made it his own, he diminished the importance of the 'other'. In India, we do it other way round: by magnifying the mentor we absolve ourselves of the responsibility of living up to his teaching. Derrida calls it 'politics' in his lecture on 'The Lie of the State and the State of the Lie" during his visit in India in 1998. It means ' a privileged space of lying'. The propagandize, the public opinion, the charismatic personality, the image manipulation are the conjuror's cloak behind which reality was sought to be replaced by illusion. It may be illustrated with the examples of re-writing history both in France and in India. In France it was the deportation of Jewish citizens during Nazi occupation. In India too, we are witnessing the re-writing of historical texts vis-a-vis restructuring of the vocabulary of political and public morality. It is in this context that I wish to place Derrida's project as 'the revenge of language (text, writing, etc.) on philosophy' and deconstruction may help us to carry on the process.

NOTES

1. Kearney, Richard, *Dialogues with Contemporary Continental Thinkers : The Phenomenological Heritage* (Manchester, Manchester University Press, 1984), p. 109.
2. *Ibid.*, pp. 112-113.
3. Derrida, Jacques, *Of Grammatology* trans. Gayatri Chakravorty Spivak (Baltimore, John Hopkins Universtiy Press 1978), p. LXV.
4. Derrida, *Positions* trans. Allan Bass (Chicago, University of Chicago Press, 1981) p. 57.
5. Wood, David & Beransconi, Robert, *Derrida* and Difference (Evaton Northwestern University Press, 1988) p. 3.

6. Kearney, Richard, *Dialogues with Contemporary Continental Thinkers: The Phenomenological Heritage, etc.*
7. Derrida *Positions* trans. Allan Bass, etc.p.8.
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9. Deborarah Chaffin, "Hegel, Derrida and The Sign" in *Continental Philosophy II, Derrida and Deconstruction*, ed. Hugh J. Silverman (New York & London, Routledge, 1989), p.77
10. Derrida, *Margins of Philosophy, trans.* by Allan Bass (Chicago: University of Chicago Press, 1982), p. 81.
11. *Ibid.*, p. 94.
12. Derrida, Jacques, *Of Grammatology*, Trans. Gayatri Chakravorty Spivak, (Baltimore : John Hopkins University Press, 1976), pp.17-18.
13. Rorty, Richard, *Consequences of Pragmatism*, (Essays : 1972-1980), etc., pp. 97-98.

ANNOUNCEMENT

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A Global Congress of World Religions is being held between 11-15 September, 2006 at Montreal, Canada. The aim of the Congress is to bring together various religions of the world in "an ecumenical spirit to address the many issues facing the world today, in the hope that this will help all of us become better human beings". The Congress will focus on

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WHY MATERIALISM AS A THEORY FAILS?

RAJAKISHORE NATH

Materialism denotes a group of doctrines concerning the nature of the world, which gives a primary position to matter and accords to mind a secondary status. But extreme materialism asserts that the real world consists of material things and nothings else. We are here concerned with such extreme materialist views. According to the materialists, the world is a clock-work mechanism of bodies, which push each other like cogs-in-the machine. The old materialistic version of materialism holds that men are machines.

Many modern philosophers, especially U.T.Place, J.J.C. Smart and D.M.Armstrong call themselves "materialists" thereby giving the term "materialsim" a meaning which differs from its earlier meaning. These philosophers arrive at materialism as a theory of mind because of their scientific conviction that human beings are physical bodies.

Philosophers have differed among themselves over issues such as what constitutes a body, what states and relationships a body may enter, and over whether every material entity is a body. By "materialism" we mean the theory that there is nothing in the world over and above those entities which are postulated by physics. This means everything in the universe, can be explained in terms of matter. At one point materialist holds that nothing exists but only matter. The mind (spirit, consciousness and soul) is matter. However, at another point, it is believed that mind does exist but is caused by material things and is completely dependent upon matter; so mind has no causal efficacy, nor is it necessary to the functioning of the material universe. Thus, materialism attempts to explain a class of phenomena by appeal to physical conditions only.

However, any materialist theory of mind denies the idea that the world includes both mental and material substances. Rather it holds that

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every substance is material in nature. Minds are fashioned from the same material from which rocks, trees and stars are made. If we take the fundamental particles that contribute to the make of inanimate objects, and arrange them in the right way, the result would be a creature with a mind. The mind is not a seaparate, non-material entity; it is only matter, suitably organised. According to this theory, whatever happens in the mind is a result of the events that occur in the body, and the mind is utterly powerless to affect the body in any way. Therefore, materialism denies the independent existence of mind.

I

The theory of materialism has a long history. Democritus descirbes the world as a fleeting arrangement of atoms floating in the void. Democritus held that, "nothing exists, but material atoms and the void, and the everything in the world is nothing but the interaction of these atoms as they move through the voide."[1] This doctrine embraces the following theses: "Nothing exists but atoms and empty space. Nothing happens by chance everything occurs for a reason and of necessity. This necessity is natural and teleological."[2] Nothing can arise out of nothing; nothing can be destroyed. All changes are new combinations or separations of atoms. The atoms are infinte in number and endlessly varied in form. This is their natural state and this requires no more explanation. All bodies are formed as a result of commotion among the atoms. In consequence, heavy atoms move to the centre, and light ones to the periphery. The vertex continually embraces new atoms which come closer to it in their random motion and it thus begins a world.

Hobbes and La-Mettrie regard mental phenomena as nothing more than mechanical interactions of material components. Hobbes said, "No part of the universe contains no body."[3] For him, the universe is a system of bodies. Whatever changese in the universe is the motion of bodies, and nothing can cause a motion, but contact with another moving body. He says that the substance of anything is body. Incorporeal substance is, therefore, a contradiction in terms. Hobbes thereby disposes angels, the soul and the God of theology. He departs from strict materialism in his introduction of 'conatus' and 'impetus' (which are not physical properties) into his account of the initiation of motion and measurement acceleration.

Nowadays, materialism of one type or another is in vogue. It explains everything in physicalistic terms. For materialists, mental states such as desire, wish, pain, and so on, are nothing but physical states. For them, only the physical universe exists with all the physical properties. Then the question arises, what are thoughts, feelings, wishes, and the other so-called mental phenomena ? Here the most radical answer, supported by very few, would be that such terms have no real meaning at all, and should be dropped from the languge.[4]

Howerver, another account of materialism explains that expressions referring to thoughts, feelings, wishes, and the like, do have meaning, but their meanings can be expressed in purely physicalistic terms. Here, one may ask, what are physical terms ? The most plausible answer is that physical terms are those that refer to physical behaviour. This behavouristic version of materialism has had a strong appeal for philosophers over the years. It allows sentences containing mentalistic terms to have meaning and, in contrast with the avowal theory, it allows these to be either true or false in the situations in which they are used by using the concept of disposition to behave. Such dispositional sentences are true even where the person is not, at that moment, behaving in any particular fashion. Yet, by tying meaning to behaviour, the theory allows sentences with mentalistic terms to be testable by observation in an open and public way. We have to determine whether someone has a headache only by seeing if, under suitable conditions, he/she behaves in relevant ways. As we know that J.B.Watson is regarded as the founder of behaviourism. He opines, " a thought is nothing but an incipient movement of the larynx and an emotion is nothing but an internal pattern of bodily adjustment."[5] In the same way B.F.Skinner writes, "I don't believe that there is a world of mentation (i.e., mental happenings) or subjective experiences... thinking is simply behaving and may be analysed as such."[6] It looks as if he thinks that there are no thoughts and believes that there are no beliefs. He says that all feelings, including fearing and wanting, are bodily acts, not mental acts.

Moreover, Ryle says that mental life consists of dispositional behaviour. There are some dispositions which always actualise in one way. For instance, the disposition of smoking always actualises in the act of smoking. But there are many dispositions whose actualisation is not one. They may actualise in diverse ways. Intelligence, for example, is one such disposition which actualises in a variety of intelligent activities. It may take various activities. All psychological concepts can be explained on the lines of 'intelligence' as given above. They primarily refer to dispositions or tendencies to behave. But there is nothing mysterious or ghostly about dispositions. There is nothing categorical about dispositions. Dispositional statements are always hypothetical. They always involve 'if then'. Again the question is, why affirm causation in the first case, and deny it in the second ? Interactionists affirms causation in both cases, parallelists in neither case. Is not the epiphenomenalist stuck up with worst of both the cases ?

'Functionalism' may be defined as the theory that explains mental phenomena in terms of the external input and the observable output. It explains the mind as a complicated machine. Functionalism arose as a result of the metroric rise of interest in computing machines and artificial intelligence. The functionalists say that mental processes are computational processes realized in a machine. The point is that minds bear a relation to their material embodiments analogous to the relation computer programmes bear to the device on which they run. Perhaps every program is 'embodied' in some material device or the other. In the same vein, we might suppose that every mind has some material embodiment, although minds may have very different kinds of material embodiment. In case of human beings, our brains constitute the hardware on which our mental software runs.

According to Churchland,[7] the essential or defining feature of any type of mental state is the set of causal relations it bears to environmental effects on the body, other types of mental state and bodily behaviour. For example, pain characteristically results from bodily damage; it causes distress, annoyance and practical reasoning aimed at relief, and it causes pain blanching, and nursing of the traumatized area.

Functionalists have regarded identity theorists as narrow-minded reductionist philosohers who aim at reducing the mental to the physical. But functionalism is antireductionist. In this way, functionalists reject the identity theory.

Functionalists also reject behaviorism. According to behaviorists, to be in particular state of mind is to respond to stimuli in a particular way. To be in pain is to respond to certain sorts of stimuli in familiar ways or at least to be disposed to respond. Functionalism rejects the very notion of causal stimuli. It interprets mental states as functional states of the human organic system.

The term 'Physicalism' stands for the doctrine that all meaningful statements can be translated into the language of physicalism which requires only that the events and states, to which they are the dispositions, be identical with physical events and states. Thomas Nagel says,[8] physicalism is the thesis that a person with all his psychological attributes, is nothing over and above his body, with its physical attributes.

T.E.Willkerson[9] opines that, in the physicalist sense of 'person' the proposition "Persons are merely physical organisms" is analytically true. Again, he says that bodily identity is a necessity and is sufficient for [ersonal identity at the same time. According to Teichman,[10] the word 'physicalism' was coined by Rudolf Carnap as a synonym for 'behaviorism', and was later used by. J.J.C. Smart. But post-Carnapian physicalism was propunded by Smart and by Armstrong. Physicalism is also called the Identity theory or the Contingent Identity theory. Smart believes that the sciences of chemistry and physics can encompass everything in the world, and that everything is explicable in terms of physics.

D.M.Armstrongm, a materialist, points out that mental states are identical with purely physical states of the central nervous system. If the mind is thought as 'that which has mental states, then we can say that the mind is simply the central nervous system or the mind is simply the brain.' Armstrong says, "Central-state materialism holds that when we are aware of our mental states what we are aware of are mere physical states of our brain. But we are certainly not aware of the mental states as states of the brain."[11] Now the central-state theory explains that, between the stimulus and the response falls physical process in the central nervous system, and nothing else at all. In addition, the central state theory of materialism maintains that the processes involved are the physico-chemical working of the central nervous system. Thus, according to Armstrong, men are material bodies. Then, the question is, what is consciousness, that is the very essence of man ? Armstrong says, "Consciousness is a self-scanning mechanism of the central nervous system."[12]

The question here is, what meaning of 'identical' is involved here ? Firstly, when we say that this pen is identical with that pen, we mean that the two pens have the same characteristics. Here the term ' identical' means 'exactly the same.' Secondly, when we say, "A is identical with B", we mean numerical identity. For example, the ancients thought that the 'morning star' was different from the 'evening star' but we now know that they are one, because both refer to the planet Venus. Therefore, the morning star and the evening star are identical; they are one and the same object. The mind-body identity theory says that mental state and physical brain state are numerically identical.

There are several identity theorists. They have explained the identity theory in many different ways. In "Is Consciousness a Brain Processes"? U.T.Place gives scientific explanation of the mind-body identity theory. He suggests that we could identify consciousness with a given pattern of brain activity. He does not argue that when we describe our dreams, fantasies, and sensations we are talking about processes in the brain. But he is not saying that statements about sensations and mental images are reducible to those about brain processes, in which cognition statements are analyzable into statements about behaviour. Saying that statements about consciousness are statements about brain processes is a false idea U.T.Place asserts that the statement,[13] "Consciousness is a process in the brain although is not necessarily true is not necessarity false. That consciousness is a process in the brain is, in his view, neither self-contradictory nor self-evident. It is a plausible hypothesis in the way that the statement "Lightening is a motion of electric charges" is a reasonable scientific hypothesis.

Like U.T.Place, J.J.C. Smart also presents the mind-body identity theory in his article "Sensation and the Brain Processes". According to Smart, in saying that sensation is a brain processes or that lightning is an electric discharge, he is using 'Is' in the sense of strict identity. He says, "I say that the successful general is the same person as the small boy who stole the apples, I mean only that the successful General I see before me is a time slice of the same four-dimensional object of which the small boy stealing the apples is an earlier time slice."[14]

J.J.C. Smart says, "By materialism I mean the theory that there is nothing in the world over and above those entities which are postulated by physics."[15] He points out that energy counts as matter for his purposes. In modern physics, energy and matter are not sharply distinguishable. Nor does he hold that materialism implies determinism. If physics is indertrministic at the micro-level, so must be the materialist's theory. He holds that materialism is compatable with the conception of matter energy. For example, if matter and energy consist of regions of special curvature of an absolute space-time, with "worm holes" and what not, this is still compatible with materialism.[16] We can argue, acording to Smart, that in the last resort the world is made up entriely of the ultimate entities of physics.

According to Smart, there are no irreducible laws or properties of biology, any more than there are those in electronics. Given the natural history of a super heterodyne, only a physicalist would be able to explain, using only laws of physics, its modes of behaviour and its properties. Just as electronics provides a physical explanations of the working of super heterodyne, biology lays out physical and chemical explanations of the working of oranisms. Thus the biologist requires natural history just as the engineer needs wiring diagrams, but neither of them need non-physical laws. Therefore, Smart denies that, in this world there are non-physical entites and non-physical laws. In particular, he wishes to deny the doctrine of psycho-physical dualism.[17]

However, sometimes theologians argue against materialism by saying that 'you cannot put love in a test-tube.' In a sense, love cannot be put in a test-tube. But we cannot even put gravitational field in a test-tube. Smart replies, "there is nothing incompatible with materials love may elude test-tube, it does not elude materialistic metaphysics. Since it can be analyzed as the for this behaviour."[18] However, a dualist may say that love is an internal state whereas a materialist will perhaps say that is soul state of the soul.

But now the question is, what is an internal state of consciousness ? Can we interepret the event of having an after-image or a painful sensation as something material, a brain state or brain process? To say that an image or sense-datum is green is not to say that the consciousness of having the image or sense-datum is green. Apples and unripe bananas can be green, but not the experience of seeing them. An image or a sense-datum can be green in a derivative sense, but that need not cause any worry. It is because, according to Smart, images or sense-data are not the constituents of the world, though the processes of having an image or a sense-datum are actual process in the world. He, therefore, says that the experience of having a green sense-datum is not itself green, but is a process occurring in grey matter.

It may be objected that, in admitting that apple and unripe bananas can be green, Smart also admitted that colours are emergent properties, not reducible within a physicist scheme of thought. In reply to the above objection, Smart says, "colours are elucidated in terms of the discriminatory reactions of normal percipients, and the notion of a normal colour is defined without recourse to the notion of colour."[19] Therefore, there are no one-to-one relation between colour and wavelength, since on infinite number of different mixtures of wave length correspond to the same colour.

When we are reporting that a lemon is yellow, we are actually reacting to the lemon. But, when we are reporting that the lemon looks yellow, we are reacting to our internal state. But a dualist would report these goings-on as those in an immaterial substance, whereas a materialist would report these as taking place inside our skull.

We can talk about immediate experiences as derivatives from the language that we use to describe physical objects. A stabbing pain is that sort of going-on which is like what goes on when a pin is stuck into us. Here, one can notice, Smart is still denying that we introspect any non-physical property such as an ache. To say that a process is an ache is simply to classify it with other processes that are felt by us. Materialism as a theory has been a realism against the theory that postualtes internal states of the mind.

II

This section sets out to examine the difficulties of the materialistic theory of mind. According to materialism, consciousness, belief, desires, etc., are nothing but physical phenomena. That is to say, all these mental phenomena that can be ascribed to a person are derived from physical phenomena. According to the materialists, mind does not exist inependently of a body. Therefore, persons who are mental beings are reduced to material bodies by the materialist.

According to some critics, materialism fails because materialistic theses contradict a large number of theological assertions. In a materialistic theory, there are no necessary beings and no supernatural interventions in the course of nature. For the materialists, claims to the existence of God and the occurrence of miracles are established neither by experience nor by argument, and may be considered as based on unscientific beliefs.The materialists urge that, in explaining our experience of the world, there is no sufficient reason for deserting the natural for the supernatural. They also argue that there is no reason to believe in the survival of bodily death or in the reincarnation of the human soul.

The materialist doctrine of mind fails to explain the mental phenomena such as sensations. For example, there are sensations like the feeling of pain, and so on. Such sensations are the inner states of the human mind as they occur in the inner life of man. The language of inner states is common and familiar. The inner states are, therefore, our introspection. So the materialists are wrong in denying the inner life of man. The sensations included in the inner life are not bodily states at all. Intentions, desires and motives have physical counterparts. Thus, the materialist approach to mental concepts is not adequate.

Therefore, it can be said that the paranormal phenomena are a serious embarrassment to materialism. It proves that there is something called parapsychology; which is impossible to be explained scientifically. The parapsyschological phenomena are real, and cannot be denied. Therefore, it is wrong or spurious to say that there is no mind at all beyond the human body. Hence materialism is false as a doctrine.

Another fact is that materialism explains reality only within the limits of empirical investigation; it cannot look beyond the horizon of material bodies. There are phenomena beyond the human body which need recognition by philosophy. These phenomena are not part of the nervous system, and yet they constitute a part of the psychological make-up of man. Physical events are only a fragment of the total human reality.

Keith Gunderson has recently revived an argument of Descartes to the effect that men are not machines, nor even cybernetic machines, and therefore, are not merely material.[20] A skill of a machine and that of man are to be explained in different ways. That is to say, man is not any kind of a machine. A peculiarity of many mental states is their essential connection with an object. In intending, we may intend something and, in hoping, we must hope for something. The thing intended or the thing hoped for may or may not have any real existence. Thus, intentions and hopes can be real mental states having as an essential part an object with no physical existence.[21] Materialism cannot explain how this is possible. It cannot explain how mental states can have an object as their referent even if it is unreal. Therefore, materialism cannot be true.

As we have seen, according to Democritus, nothing exists but material atoms and the void and everything in the world is just the interaction of these atoms as they move through the void. On the contrary, according to the mental theory, along with the atoms, there is the spirit, the consciousness, the soul, etc., that can exist without the material body. Therefore, Democritus must be wrong in reducing the entire world to atoms and void.

The most systematic dualistic theory is the one that the French philosopher Descartes has presented. He held that the subject of consciousness is the mind and the the mind is a thing or entity, separate and distinct from the body. The body is a thing whose essence is occupying space. However, on the other hand, the mind is completely different in its nature. It is non spatial, and has neither size nor shape. Its essence is simply having consciousness; that is, having thought, feelings, memories, perceptions, desire, etc., and is opposed to the body.

Descartes says that minds and bodies are distinct kinds of 'substance'. The qualities of our conscious experiences appear to the nothing like those of material objects. Indeed they seem to be unlike the qualities of any conceivable material object. The natural conclusion is, therefore, that mental qualities are not qualities of materiak objects, as they differ in their nature from material qualities. There is also an epistemological distinction between the mind and the body. The knowledge of our own states of mind is dired nad unchallengable in a way that our knowledge of material objects is not.

In the *Second Meditation,* Descartes has given a suitable explanation of the nature of the mind and how it is better known than the body. Descartes says, "Everything what I see is spurious and what my memory tells me is false... I have no senses. Body, extension, movement, etc., are imaginary things."[22] For him, everything may be false except our thinking.

Again, a question may be raised, "Who am I ? If I am not a body, and if there is absolutely nothing in the world, no bodies, no sky, then does it follow that I do not exist ?' For Descartes, I certainly exist to think of this. If I conceive of myself as being something then I exist. From this we can conclude that, according to Descartes, "I am, I exist" is necessarily true whenever it is conceived in my mind. However, for him, there are cetain things which can only think, that is, they can exist without a body. Here, he goes against materialism and says that this thinking thing is I, that is, our mind as distinct from our body. This mind or intellect is distinct from all material objects in this universe.

In *Sixth Meditation,* Descartes says that "I am a simple thinking thing, and not an extended thing; and on the other hand, I have a distinct idea of the body which is an extended and non-thinking thing. Consequently, it is certain that I am really distinct from my body and can exist without it."[23] He says that there is a great difference between the mind and the body. He says that the mind is public, individual, eternal, etc., but all these qualities are not found in the material body. In this way, Descartes criticises the materialist theory of mind. As Searle[24] rightly pointed out, the essential feature of the mind is intentionality, which is not a material at all. Therefore, Searle argues that materialism has failed to account for the intentional mental phenomena.

E.J.Lowe offers an argument against eliminative marteialism. He says, "It mischaracterizes 'folk psychology' in describing it as a would-be scientific theory."[25] Again, he says that when we ascribe beliefs and desires to people and attempt to understand their behaviour in terms of their possession of such mental states, we are not doing anything that is analogous to what scientists do when they explain the movements of massive bodies by reference to the forces acting upon them. The terms 'beliefs' and 'desires' are rational, in which we explain why people act in the ways they do by reference to their putative reason for acting so. Therefore, folk psychology is not a theory of human behaviour. We cannot compare the theory of mind with the theory of matter. What the materialist argues is wrong, and therefore, it fails as a theory of mind.

Behaviourists hold that assertions concerning states of mind can be translated into statements about behaviour or disposition to behave. That is to say, behaviourism tries to give an account of my mind in terms of observed behaviour. But the question is : What is the term 'observed' doing here ? The word 'observe' is a mental word; and if we use it in favour of behaviourism, then it would defeat the behaviourist theory of mind. According to behaviourism, the mind is a matter of behaviour, actual or potential. It is a fact about this behaviour that it is readily accessible to observation. But, it may be argued that certain mental activities are accountable observation. This argument will apply to all other sorts of thinking to oneself, and other forms of mental activity such as forming an intention, feeling an emotion, having a perception or a mental image, and so on. In all these cases, the mind plays a vital role and these are all examples of mental activity. It is wrong to say that they are bodily activites. In another case, for example, if somebody is reading a book and, at the time, thinking about anything else, it is impossible to say whether he is reading or thinking. But our perception may tell us that he is reading. We can never perceive his mental events. We can know the bodily behaviour because it is different from mental acts.

Searle's objections to behaviourism can be divided into two kinds - common sense and more or less techincal objections. On the one hand, a common sense objection is that the behaviourist seems to leave out the mental phenomena in question. There is nothing left for the subjective experience of thinking or feeling in the behaviourist account. However, the technical objection is that the behaviourist has never succeded in completely clarifying the notion of a 'disposition'. None has ever succeeded in providing a satisfactory account of what sorts of antecedents there would have to be in the hypothetical statements to produce an adequate dispositional analysis of mental terms. Another objection to behaviourism is that it leaves out the causal relations between mental states and behaviour. For example, by identifying pain with the disposition to pain behaviour, behaviourism leaves out the fact that pains cause behaviour. Similarly, if we try to analyze beliefs and desires in terms of behaviour, we are no longer able to say that beliefs and desires cause behaviour. According to Searle, "The contradiction of behaviourism lies in the fact that it denies the existence of any inner mental states in addition to external behaviour."[26] For this runs dead counter to our ordinary experience of what it is like to be a man. Searle says that for this reason, behaviourists were sarcastically accused of "feigning anesthesia", and were the target of a number of bad jokes. One can easily imagine an actor of superior abilities, who could perfectly imitate the behaviour of some one in pain, even though the actor in question has no pain; one can also imagine a superpartan who would be able to endure pain without expressing any sign of being in pain.

Behaviourism is sometimes called 'reductionism' because it holds that propositions about mental states and happenings of every kind are reducible to propositions about publicly observable behaviour. In this view propositions or statements containing such words as 'seeing', 'thinking', 'consciousness,' 'feeling' and 'wishing' are only meaningful if and so far as they can be translated into statements about publicly observable bodily happenings. This is the dogma, which Hare[27] objects to. He says that what behaviourists say is superfluous. Hare says, "If anyone says he cannot understand what I am talking about, I do not know how I can help him. All the same, I do not think he thinks he really needs any help. It seems to me that everyone already knows for himself what it is to be aware of things."[28] Everyone knows that being aware of something is different from any kind of bodily happening. Though it may have all sorts of causal connections within bodily happenings.

Epiphenomenalists hold that mental phenomena are by-products or side-effects of a complex physical system. In addition, they say that there is a one-way causal relation, that is the relation of the body to mind or matter to mental. Neverthelss, the nature of material to mental causal relations is not too clear. We know that many philosophers accept the idea that causal relations exist among events. The epiphenomenalist argument that some material events cause mental events, but mental events cause nothing, is wrong. There would be no harm in allowing that mental events could themselves cause mental events, so that some mental events would events would have a life of their own. However, it is the essence of epiphenomenalism that mental events are by-products of material events.

As Heil [29] argues, we must suppose, then, that mental events, although themselves causally inert are caused by material events. Dead-end' causal relations of this sort differ from ordinary causal relation. He says that, in the case of ordinary material causation, events are both effects and causes. Therefore, causal transactions that include mental events appear to be very different from those ecountered elsewhere in the universe. It is merely a cosequence of the epiphenomenalist's conception of mental events.

Of course, there is no guarantee that the world is a simple plane. As Heil[30] says, we can think of Ockham's Razor not as a principle that tells us how the world is organised, but as one that encourages us to place the burden of proof on proponents of 'less simple' theories. If an alternative to epiphenomenalism avoids 'dead-end' causal relations, then the burden is on the proponent of epiphenomenalism to convince us that epiphenomenalism nevertheless affords a better account of the phenomena.

According to the identity theory, minds are meterial entitires; brains and mental properites are, as a matter of empirical fact, material properties of brains and the nervous system. The identity theorists are not clarifying merely that mental properties are properties of material bodies. One may think on this basis, that mental properties are quite different form non-mental ones. However, the identity theorists argue that every mental property is identical with a physical property. For them, dualism of language does exist in the identity theory, but not dualism of entities.

But the question is : Do we merely have a dualism of language and no other sort of dualism ? Shaffer says, in the case of Venus, it refers to the 'morning star' and the 'evening star'. One star appears in the evening and the same one appears in the morning, which are different appearances. If that object did not have these two distinct aspects, it would not have been a discovery that the morning star and the evening star were indeed one and the same body, and there would be no point in referring to it in different ways.

The difficulty with the identity theory is that, if mental events are to be identical with physical events, then they must fulfill the conditions of co-existence in time and space; the question here are: Do they ? Where do thoughts, feelings and wishes occur ? Do they occur in the brain ? For example, in direct stimulation of an exposed part of the brain during surgety, since only a local anesthetic is necessary, in most of such cases, the patient may well be fully conscious. Then, as the surgeon stimulates different parts of the brain, the patient can report the occurrence of mental events, memories and thoughts. The question here is, do the physical events in the brain and the mental events occur at precisely the same time ? It is not possible to say that they do; so it is proven that physical events are not identical with the mental events. According to Shaffer[31], it is very difficult to see how the existence of so brief a time-period could be established. And even if it were so, what would it prove? Only that the mental event was not identical with that physical event. It would not prove it was non-identical with any physical events.

Descartes, in his *Second Meditation*, shows that there is a real distinction between the mind and the body. He says that the mind is a thinking, unextende thing, which is distinct from the body. The essence of body is extension, which is opposed to the mental. Therefore, there is no identity between the body in extension, which is opposed to the mental.

Therefore, there is no identity between the body and the mind. John R. Searle offers a 'technical' objection to the identity theory. He says, "It seems ulikely that for every type of mental state there will be one and only one type of neurophysiological state with which it is identical."[32] Again, Searle says that even if my belief that Denver is the capital of Colorado is identical with a state of my pain, it is expected that everyone who believes that Denver is the capital of Colorado must have an identical neurophysiolgical configuration in his or her brain. If it is true that in all human beings pain is identical with human neurophysiological events, we do not want to exclude the possibility that, in some other species, there might be pains that are identical to some other type of neurophysiological configuration.

A 'technically' more serious objection to the identity theory is derived by Searle from Leibnitz's law. Searl says, "Two events are identical only if they have all of their properties in common. Then it seems that mental states cannot be identical with physical states, because mental states have certain properties that physical states do not have."[33] In reply to this objection, the identity theorists pointed out that the unit of analysis is really the experience of having pain and that experience takes place in the central nervous system.

J.J.C. Smart, in his article, "*Senstaions and Brain Processes*", attempts to show that sensations are identical with the brain process. That is to say that sensations are brain process as a matter of scientific fact. Smart does not claim that 'sensation' means, or can be translated as, 'brain process.' Secondly, Smart's use of the word 'is' in his statement 'A sensation is a brain process' is like the use of 'is' in 'The table is brown'. The use of 'is' here is functional and is not an analytic truth. According to Stevenson, when one says that a sensation is a brain process or that lightning is an electrical discharge, one is using 'is' in the sense of strict identity. However, what does it mean to say that X is strictly identical with Y ? A clear meaning is given to this expression by Leibnitz's principle of the identity of indiscernibles as formulated in standard logic textbooks:

$$(X=Y)=df\ (f)\ (fx=fy)$$

That is to say, X is strictly identical with y if and only if every property of X is a property of Y, and coverse.

However, Smart's claim is that 'sensation' is not synonymous with 'brain process'.It is only a case of factual identity and not the identity of meaning.

According to Smart, the morning star is strictly identical with the evening star; they are one and the same thing, namely, the planet Venus. But the 'morning star' does not mean the same as 'evening star' is different form the 'morning star'. The latter connotes several properties, including one which can roughly be expressed as appearing in the morning; whereas the evening star connotes, among other things, appearing in the evening. However, we can notice that the morning star has precisely the same properties as the evening star; the morning star not only appears in the morning, but also appears in the evening; and the evening star not only appears in the evening, but also appears in the morning. If the morning star is strictly idenctical with the evening star, this implies that the evening star has all the properties of the morning star, including the defining properties for the 'morning star'. Therefore Stevenson concludes that Smart's argument has no advantage over one ordinary form of dualism.[34]

Now we will examine the reasons for believing that physicalism cannot be true. Thomas Nagel says, "I mean by physicalism the thesis that a person, with all his psychological attributes, is nothing over and above his body, with all its physical attributes."[35] There are various theories and their claims may be calssified according to their identites, which they allege between the mental, and the physical.

It is not clear whether every physicalist theory must assert the identity of each person with his body, nor is the connection between this identity and that of psychological with physical states easy to describe. Nagel says that physicalism violates Leibnitz's law, which requires that, if two things are identical, they have all their non-intentional and non-modal properties in common. It may be objected that sensory impressions, pains, thoughts, and so on, have various properties which brain states lack, and vice versa. He says that a person is identical with physical bodies as mentioned by physicalism. But this is not so because a person has some accidental attributes like the body. The most important objection to physicalism has to do with location. Brain process is located in the brain, but a pain may be located in the chin, and a thought has no location at all. The location of physical events is different from the location of mental events.

There is also a philosophical view that physicalism is impossible. According to Nagel, it expresses itself crudely as the feeling that there is a fundamental distinction between the subjective and the objective, which cannot be bridged. He says, the feeling is that I cannot be a mere physical object, because I possess my mental states; I am their subject in a way in which no physical object can possibly be the subject of its attributes. I have a type of internality which physical things lack; so in addition to the connection, which all my mental states do admittedly have with my body, they are also mine. That is, they have a particular self as their subject, rather than merely being attributes of an object.[36] Since any mental state must have a self as subject, it cannot be identical with a mere attribute of some object such as a body, and the self, which is its subject, cannot, therefore, be a body.

According to functionalism, the system of the robot-plus-109 unit brain could instantiate a relevant functional organization and would be the subject of mental states. However, it is urged that the complex states that play the functional roles of pain, pleasure and senstions of color would not have intrinsic qualia as ours, and would be a foil to genuine mental states, Therefore, functionalism seems to be, at best, an incomplete account of the nature of mental states.

But the central idea of functionalism is that the mental phenomena are defined in terms of the external input and the observable output. It admits a network of interrelated mental states and processes which constitute the natural history of the mind. Again, they say that mental states and processes are functional kinds. Earlier, we saw that functionalism developed with the advent of computing machines. Think of minds as devices running software on complex chunks of hardware in the case of human beings. But Ned Block attacks functionalism from another direction, arguing that any functional defintion of mental states will be either too liberal or too partial. Functionalists argue that man is a machine and it performs like a machine. Nowadays the computers and robots are doing the same work that man does.

Ned Block argues the functionalism is too wide because, in mental states and process it included arrangements of matter, which no one would describe as mental. In support of this, he has invented a thought experiment, which is supposed to prove that functionalism will classify mind with logically possible entities, which we know, are no minds. John R. Searle has given a common-sense and technical objection to functionalism. According to him,[37] the common-sense objection is that the functionalist seems to leave out the qualitative subjective feels of at least some of our mental states. And the technical objection of functionalism is that functionalism so defined fails to state in material terms what constitute mental phenomena.

Therefore, materialism fails as a theory mind because mind is more than an assemblage of atoms. If we understand human beings properly, we cannot do without the concepts of perception, belief, intelligence, action, decision, choice, motive, etc. We also need to look into the aspects of conscuiousness and self-conscuiousness is the essence of man. A human mind is basically a self-conscious being. It is not the material constituents that make a person. It is mind that identifies human being but not matter.

NOTES

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3. *Ibid.* p. 38.
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16. *Ibid.*, p.11.

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19. *Ibid.*, p.161.

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VALID COGNITION IN NAVYA-NYĀYA: A RECONSIDERATION

NIRMALY GUHA

[Here is a conversation between, Ācārya, Sahasrabuddhi and Vipāśa. Ācārya is a traditioal guru, trained in Indian Sastras. Sahasrabuddhi is his young disciple. Vipāśa seems to have some training in the Western tradition. He is trying to formalize the discussion in his 'language'. They spoke mostly in Sanskrit. We are translating their conversation into English. In fact Vipāśa himself has translated the conversation with his formalizations.]

Ācārya: According to Nyāya if the qualificand (*viśeṣya*) of a conition[1] possesses the qualifier (*prakāra*) of the very cognition, then the cognition is valid.[2] Suppose someone cognizes "This is a snake". Here the qualificand of the cognition is 'this' and qualifier 'snake-ness'. If snake-ness really belongs to the referent of 'this' i.e. the thing right in front of the cognizer, the cognition is valid and invalid otherwise.

Vipasa : Let me understand the definition in my own way. Any cognition P has the following form ---

"x is y"

Here the qualifier (*prakāra*) is y-ness. If y-ness really resides in x (which is the qualificand or *viśeṣya* of P) as a property, P is valid and invalid otherwise. Now let P be "This is a snake" where "This = the thing right in front of the cognizer. If snake-ness really resides in the thing right in front of the cognizer, P is valid. When someone cognizes a snake in a rope and attains the cognition "This is snake" then snake-ness doesn't reside in the thing right in front of the cognizer (i.e. a rope) and the cognition is invalid.

Sahasrabuddhi : But sir, we can clarify this definition a little more. When someone says 'y-ness really resides in x', he seems to be saying that 'x is the substratum[3] and y-ness is the superstratum[4] here'. But that is not the case always. Suppose someone says 'Pot-ness is there in this

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pot'[5]. According to Nyāya, three things must appear in each and every congnition--- qualificand, qualifier and relation (*saṃsarga*). Here 'pot-ness' is the qualificand, 'pot' is the qualifer and the relation is inherent-ness or *samavetatva* (inverse inherence). But 'pot-ness' can't be a substratum of 'pot'. Therefore when we say 'y-ness really resides in x', we mean to say 'y-ness is related to x on the relation that is appearing in the cognition[6]'. Likewise, in case of 'There is pot-ness in this pot', the analysis is: Here 'pot' is related to 'pot-ness' in the relation of inherent-ness. But still I have an objection. Suppose Devadatta sees a hill and before seeing fire there imagines that "This hill possesses fire". After some ten minutes Devadatta really finds fire in that hill. Thus his cognition is pragmatically successful (*Saṃvādi*). Now Devadatta's 'imaginary mental cognition' (*mānasānubhava*) is of course valid according to our definition, as the hill really possesses fire. Our traditional definition can't rule this case out.

V(ipāśa) : Intuitively I understand that such a cognition is not valid. But what would be the official explanation for this in Nyāya ?

A(carya) : Let's discuss that in some length. The Naiyāyika has enumerated the valid cognitions i.e. *pramā.* They are four in number... (i) Perception[7] (*pratyakṣa*) caused by sense-object-contact[8] (ii) Inference (*anumiti*) caused by the cognition of entailment or *vyāptijñāna* (iii) Analogy (upamiti) caused by the cognition of similarity or *sāḍrśyajñāna* and (iv) Testimony (*śabda*) caused by the cognition of words or *padajñāna.* This is the official position of Nyāya regarding the number of pramā. Now they can't accept a fifth one. Look at the imaginary cognition. It can't be inferential, as no cognition of entailment is involved here. It can't be an analogy, as no cognition of similarity causes this. It is of course not a testimony. It is not even pratyaksa, as it is not caused by any sense-object-contanct. The instrument of such a cognition is mind functioning as mind only[9]. When mind functions as a sense organ[10], it cognizes the internal cognitions like pain, pleasure etc[11]. Another thing--- logic always looks at the intuitive understanding of some concept and then tries to catch that intuition in the difinition. We can call that intuitive or tacit understanding '*lakṣyālakṣyajñānm*' (the knowledge of the definiendum and non-definiendum). When we make a statement stating some characteristic feature, which belongs to each and every definiendum and doesn't belong to any non-definiendum, we attain the '*lakṣaṇajñānm*' can't be an analogy.

as (the knowledge of the definition). You can always question our '*lakṣaṇajñānm*' as it may suffer from over-generalization[12] or under-generalization[13], but not the '*lakṣyālakṣyajñānm*', which logic starts with.

V: But Sahasrabuddhi, such a cognition is not a memory, nor is it false, as the hill really possesses fire. This is not a valid one. In that case can Nyāya officially accept the possibility of such a thing ?

S(ahasrabuddhi) : Of course. Such a cognition can be born anywhere as it depends only on the desire of the cognizing subject. We can look at Gadādhara who says, "The term 'mental' implies that cognition is not born of any special defect [like jaundice etc]. Thus [the definition of fallacy] will accommodate the following case: Suppose one knows that his complexion is not fair, still he thinks that ' I am fair, as I am myself'."[14] Let's ignore the irrelevant parts and see what he wants to say about such an imaginary mental cognition. For him, P is such a cognition, if P is not conditioned by any organic defect like jaudiced eyes[15] etc and is imposed on the cognizing self by a free desire while the cognizing subject knows that 'Not-P'.

V : In that case P is a cognition attained by the cognizing subject after he knows 'It is not the case that P'. But your case is different. Devadatta doesn't know that "The hill *doesn't* possess fire".

S : If P can be attained even after the attainment of the valid cognition 'Not-P', why can't one attain P when he doesn't know 'Not-P'? If Nyāya doesn't mention (in fact it doesn't) such mental cognitions while categorizing the cognitions, we can always question the consistency of Nyāya, as it discusses such things somewhere else.

A : Well, Then would you like to reformulate the definition of valid cognition in order to prevent this over-generalization ?

S : Let's add a small phrase to the definition.The final defintion is: "If the qualificand (*viśeṣya*) of a cognition P possesses the qualifier (*prakāra*) of P and P *depends on sense-object-contact* then P is valid".[16] An imaginary cognition never depends on sense-object-contact. Without any sense-object contact Devadatta can very well imagine x in y as this imagination depends only on his desire and on nothing else. Now the definition can rule such cases out. On the other hand a valid perceptual cognition depends on sense-object-contact directly. Other three valid cognitions, namely inference, testimony and analogy do depend on sense-object-contact indirectly. Of course the cognition of God is not the definiendum of our definition, as His cognition never has a qualifier, though it has adjectives.[17]

V: I think still there is a problem in the definition. Suppose I take a rope as a snake and attain the cognition Q "There is a snake in the room"[18] and unknown to me there is really a snake in the room. Now Q satisfies both the criteria (i) the room really possesses a snake (ii) Q is caused by a sense-object-contact. Still Q is not valid, though the revised definition can't rule it out.

A: There must not be any invalidity in any part of a valid cognition[19]. Let's analyze Q. There are basically three qualifiers in Q--- 'snake-ness', 'room' and 'room-ness'. The qualificand of Q is 'this' and in this part[20] the qualifier is 'snake-ness' while the qualifier of the whole proposition is 'room'. Now you see that 'snake-ness' doesn't really reside in the entity denoted by 'this'. So Q is not a valid cognition.

S: But sir, I can see another over-generalization in the definition. Suppose Devadatta has two sons, Caitra and Maitra who look almost alike. Caitra is standing somewhere and from a distance Vipāśa takes Caitra as Maitra. Now Vipāśa attains the cognition D i.e. 'Devadatta's son is standing there'. D satisfies all the criteria of the definition of valid cognition as the person standing there is in fact Devadatta's son and D is caused by a sense-object-contact. Still D is not valid.

V: I can smell a 'Western; problem here.

S: That I don't know.

[After a long discussion...]

A: ... Finally we add a third criterion : The cognition must not be caused by another cognition R whose qualificand doesn't possess the qualifier.

V: Then what you want to say is something like the following: A cognition P is valid if and only if

i. The qualificand of P possesses the qualifier of P;

ii. P depends on a sense-object-contact, directly or indirectly;

iii. P is not caused by another cognition R, whose qualificand possesses the absence of the qualifier of R[21].

D (=Devadatta's son is standing there) is caused by another cognition E i.e. 'This is Caitra'. The qualificand of E (i.e. 'this') possesses the absence of the property of being Caitra (i.e. the qualifier of E). Therefore D doesn't satisfy the third condition and is invalid.

A: Sahasrabuddhi, is your problem solved ?

S: Yes, but do you think this is the final formulation of the definition?

A: No, You can keep on elaborating it. But this is the basic formulation. Now we can add the relational abstracts and many other technical things. In Navya-Nyāya no definition is complete. Probably 'incompleteness' is a virtue here, not a vice.*

NOTES

1. For the sake of convenience let's consider ' cognition' a count noun here, even at the cost of grammar.
2. tadvati tatprakārakānubhavaḥ pramā
3. ādhāra
4. ādheya
5. paṭe paṭatvamā
6. tatsambandhini tatprakārakānubhavaḥ
7. 'Percection' is a bad translation of Pratyakṣa as we can think of bhrama-pratyakṣa or illusory pratyakṣa whereas 'illusory perception' is absurdity. Actually pratyakṣa is a cognition caused by sense-object-contact.
8. indriyārthasannikarṣa
9. manastvāvacchinnamanaḥ
10. indriyatvāvacchinnamanaḥ
11. sukhāduḥkhārdi
12. ativyāpti
13. avyāpti
14. mānasapadam doṣaviśeṣājanyajñānaparam, tena 'nāhaṃ gaura' iti niścayānantaram..

    ātmatvaviśeṣyakagauratvādiprakārakamānasasyotpattāvapi 'ahaṃ gaura, ātmatvād' ityādisthalīyabādhādau nāvyāptiḥ --- sāmānyaniruktigādādharī
15. mānasajñānaṃ pittādidoṣaviśeṣājanyaṃ

    bādhaniścayakālīnecchāmūlakaviparītabuddhiḥ

16. indriyārthasannikarṣāpekṣī tadvati tatprakārakānubhavaḥ pramā
17. Viśeṣaṇa. The very word 'qualifier' or 'prākara' implies that the cognition bearing it is an effect. According to Nyāya the Divine Cognition is eternal.
18. 'gṛhe sarpaḥ'
19. bhramasāmānyabhinna
20. viśeṣyāṃśa
21. 'prakārībhutadharmābhāvavadviśeṣyakānubhavājanya indriyārthasannikarṣāpekṣī tadvati tatprakārakānubhavaḥ pramā

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BUDDHIST MYSTICISM : A FEW OBSERVATIONS

PRAMOD KUMAR SINGH

I

We had better begun with the question whether Buddhist mysticism is a mysticism in the strict sense of the term 'mysticism'. If we define mysticism as "immediate, non-discursive, intuitive relation with the Absolute, whether personal.. or impersonal...." then it would be hard to affirm that there is mysticism in Buddhism. This is what L Dela Vallée Poussin and E.J. Thomas had contended in their contribution on "Mysticism (Buddhist)" in *Encyclopaedia of Religion and Ethics.* Their contention was that as there is no Absolute according to all the orthodox forms of Buddhist mysticism as such.[1]

Over the decades the meaning of 'mysticism' appears to have become broader. One of the distinguished philosophers of religion, John Hick, for instance, has defined mystical experience as nothing other than "first hand religious experience as such". He observes :

> "Religion consits primarily in experiencing our life in its relation to the Transcendent adn living on the basis of that experience. And mysticism, I take it, is simply religion understood in this way... mysticism is a general name for religious experience together with part at least of the network pf religious practices which support it."[2]

In this broader sense, Buddhism is as much rooted in mystical experience as are the other major world religions. Being based on the mystical experience and the resultant spiritual awakening (bodhi) of Prince Siddhartha, Buddhism can simply not be anything else than a mysticism at its core.

One of the pivotal tenets of mysticism is that there is a third kind of knowledge over and above sense-knowledge and knowledge by inference. In this respect too, Buddhism belongs to the mainstream of world mysticism.

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Buddha only interpresţs his religious experience with the aid of the concepts provided by his cultural milieu like Karma, Saṁsāra, Avidyā, etc. Even here we do find that he introduces necessary changes into the cultural context that he inherits. For instance, he finds such concepts as God and Self irrelevant to the articulation of his religious experience.

In Sutta 26 of Majjhima-Nikāya, Buddha sheds light on the nature of his mystical insight into the meaning and destiny of human existence as follows :

> "This doctrine to which I have attained is profound, recondite, and difficult of comprehension, good, excellent, and *not to be reached by mere reasoning*, subtle and intelligible only to the wise."[3]

Like the Upaniṣadic seers, the proponents of Vedānta, the Sufi mystics and other master mystics like Eckhart, Buddha is convinced of the transcendental character of his spiritual or inner awakening (bodhi).

II

Professor Sisir Kumar Ghose demarcates four stages in the attainment of or ascension to the mystical experience, viz. purgation (of bodily desires), purification (of the will), illumination (of the mind) and unification (of one's will or being with the divine.)[4]

Buddhist mysticism lays great stress on the stages of purgation and purification. The Buddha's sermons at Rajagaha, Jetvana and of many other occasions bear ample testimony to this. But this mysticism fundamentally differs from Upaniṣadic, Sufi and many other schools of mysticism in regarding illumination of the mind as the summum bonum of the path of mysticism. If has no room for any unification between the self and the Absolute for the reason that the very entities that are to unite are not acknowledged to be valid concepts.

In the description of his own state of Nirvāṇa, the Buddha lays stress only on the cognitive dimension which liberates a person immediately from the states of ignorance, suffering, selfhood and the cycle of life and death. In the Sutta 26 of Majjhima-Nikāya, he sets forth the state of super consciousness as follows :

> "And being, O priests, myself subject to birth, I perceived the wretchedness of what is subject to birth, and craving the

> incomparable security of a Nirvāṇa free from birth; myself subject to old age, disease.., death.., sorrow.., corruption, I perceived the wretchedness of what is subject to corruption, and craving the incomparable the security of a Nirvana free from corruption. And the knowledge and the insight sprang up within me "My deliverance is unshakable; this is my last existence; no more shall I be born again."[5]

Soon after his mystic illumination, the Buddha encountered the naked ascetic Upaka between the Bo-tree and Gaya while on his way to Vārāṇaśi. In his reply to Upaka's query as to who his spiritual mentor was, the Buddha laid emphasis on the fact that his mystic experience had imbued him with total illumination, with higher knowledge capable of destroying his thirst for the world of the senses. Here are the Buddha's first utterances immediately after his mystic experience :

> "All-conquering have I now become, all-knowing; Untainted by the elements of being. I've left all things, am freed through thirst's destruction, All wisdom's mine: what teacher should I follow ?"[6]

Thus Buddhist mysticism lays stress on the cognitive dimension of mystical experience. "Knowledge of Being, not absorption of the self into divine or cosmic Being, is therefore the keynote of Buddhist mysticism", remarked Herbert V. Guenther.[7]

III

In this sermon to the five disciples at Vārāṇaśi, the Buddha delineates the various stages to the highest mystic experience. The first stage or trance consists in an isolation from sensual pleasures and demeritorious deeds. This state is characterized by joy and happiness. The second trance consists in the inner tranquility and the inactivity of the rational faculty. Contemplation is a prominent feature of the third and fourth trances. The fifth trance consists in the contemplation on the infinity of space. The seeker passes on to the infinity of consciousness in the sixth trance and then to the contemplation of nothingness. At the eighth or the penultimate stage, the seeker proceeds from the realm of nothingness to the realm of 'neither perception nor non-perception'. The Buddha's reluctance to give a detailed description of the nature of mystical experience is evident in his account of this final stage of religious experience :

> "But again, O priests, a priest through havig completely overpassed the realm of neither perception nor yet non-perception, arrives at the cessation of perception and sensation, and before the clear vision of wisdom all his depravity wastes away."[8]

Such a person's transformation into an arhat and his total liberation from evil is underlined in this account:

> "Of such a priest, O priests, is it said, 'He has blinded Māra, made useless the eye of Māra, gone out of sight of the wicked one, and passed beyond all adhesion to the world'. He walks, stands, squats and lies down in confident security. And why ? Because, O priests, he is out of the reach of Māra."[9]

IV

The Buddha takes recourse mostly to negative descriptions of the everlasting state of mystic illumination. He used such expressions as deathless (*amrita*), without end (*ananta*), not liable to dissolution (*apolokina*), imperishable (*acyuta*) etc. for this state of final release (*apavagga*). In his long dialogue with Upaśiva in Saṁyutta Nikāya, he carries his negative method of communication to one of its logical conlcusions when he refers to the inadequacy of speech to convey the experience:

> "There is no measure to him who has gone to rest; he keeps nothing that could be named. When all dharmas are abolished, all parts of speech are also abolished. (*Attahaṅgatassa na pamāṇam atthi; yena naṁ vajju, taṁ tassa nātthi; Sabbesu dhammesu, samūhatesu Samūhatā Vādapathā pi sabbeti*)"[10]

This ineffability is the keynote of his characterization of Nirvāṇa in Udāna 80 which, in our view, is one of the characteristic revelations of Buddhist mysticism. Here we notice a not-so-oblique reference to the transcendental realm or universe of non-discourse of some kind. The Buddha, much like a Upaniṣadic seer, proclaims:

> "There is that sphere wherein is neither earth nor water nor fire nor air; wherein is neither the sphere of infinite space nor of infinite consciousness nor of nothingness, nor of neither ideation nor non-ideation; where there is neither this world nor a world beyond nor both together nor moon nor sun..."[11]

He continues :

> "I say there is neither coming from it nor going to it; it has neither duration nor decay; there is neither beginning nor establishment; there is no result and no cause; this verily is the end of suffering."[12]

Like Jaidev Singh, we are also convinced that the Buddha here refers to the revelation of a new dimension of being in mystic experience. This characterization of mystic experience has striking similarity to attempts in the Upaniṣads to depict such a singular and basically ineffable experience.

Here is how the Māṇḍukya Upaniṣad describes the state of superconsciousness (the chaturtham) :

> "Not inwardly cognitive (*antaḥ-prajña*), not outwardly cognitive (*bahih-prajña*), not both-wise cognitive (*ubhayatah-prajña*), not cognitive (*prajña*), not non-cognitive (*a-prajña*), unseen (*a-dresta*), with which there can be no dealing (*a-vyavahāra*), ungraspable (*a-grāhya*), having no distinctive mark (*a-lakṣaṇa*), non-thinkable (*a-cintya*), that cannot be designated (a-*vyapadeśya*)..."[13]

So far as the mystical content of Buddhism, the Madhyamika school of Mahāyāna philosophy appears to accord closely with the Buddha's life and teachings. The Mādhyamika thinkers like Nāgārjuna and Chandrakirti prefer to use the world 'Śūnya' and Śūnyatā' to denote the mystical experience of a bodhisattva. In his Mādhyamika Kārikā, Nāgārjuna characterizes Śūnyatā as that experience which cannot be communicated (*aparapratyayam*), as inexpressible by the categories belonging to the verbalising activity of the mind (*prapanchariraprapanchitam*), as devoid of plurality (*anānārtham*) and as incomprehensible by the intellect or reason (nirvikalpam).

The Buddha's silence regarding the 'questions that tend not to edification' including the ones about the saint's existence or being after his nirvāṇa and about the eternality or transience of the world found a systematic expression in Mādhyamika distinction between the two kinds of truth: empirical (*saṁvṛiti*) and transcendental (*paramārtha*).

Ashwaghosha, the author of *Buddha Charita*, was another pioneer of Mahāyānic mystical philosophy. In this classic work on the Buddha's life and mystical awakening, we come across the following splendid reference as to how the Buddha attained his bodhi or transcendental cognition and the consequent liberation :

> "This is pain, this also is the origin of pain in the world of living beings; this also is the stopping of pain : this is that course which leads to its stopping. So having determined he knew all as it really was. Thus he, the holy one, sitting there on his seat of grass at the root of the tree, pondening by his own efforts attained at last perfect knowledge."[14]

The transformation of Prince Siddhartha into the tathāgata (one who has attained the mystical enlightenment) is described in a metaphorical mode of speech as follows :

> "There has arisen the greatest of all beings, the Omniscient All-wise Arhat - a lotus, unsoiled by the dust of passion, spring up from the lack of knowledge.."[15]

V

The bodhisattva ideal is one of the greatest accomplishments of Buddhist mysticism. It appears to be the consummation of mysticism at large. Here is a mode of individual existence, which is soaked through with bodhi or enlightenment. His individuality is an abode of universality which rises above cultural parochialism. His unique existence is the actualization of the synthesis of bodhi (mysitcal illumination) and Karuṇā or compassion, of knowledge and action, of the paramārtha (transcendenstal realm) and Vyavahāra (the here and now) and of the personal quest for liberation and the altruistic concern for mankind, nay, for the entire domain of sentient being. His decision to postpone his own final Nirvāṇa in order to alleviate the suffering of his fellow human beings and other sentient beings adds a glorious dimension to mysticism.

Many scholars of mysticism have directed our attention to the expression of mystic illumination in social action. Such scholars inculude Hocking, Underhill, Bergson, Wapnick and Johnston. Thus, the bodhisattva ideal has manifested itself in such historical cases as those of Eckhart, Joan of Arc, Kabir and Gandhi. Richard Woods refers to this postillumination phase of a mystic's life as a matter of after a period of withdrawal for self-realization positive social engagement. He says :

> "This isolation and alienation of the mystics during their period of development is thus both provisional and contingent upon

> heightened social interaction later on,... The greater mystics, then, are those whose identification with their fellow human beings is more profoundly human, less specifically cultural, and whose process of development is proportionately searching, their subsequent activity more pervasive and penetrating. They belong not to Germany, Spain or India, but to the world."[16]

Compared to this ideal, Theravāda ideals of the arhart and pratyeka buddha or self-enlightened Buddha lack this equal valuation of wisdom (prajñā) and compassion (karuṇā). Only the Bodhisattva is so suffused with compassion that he transfers his own merit to his devotees for their faster moral and spiritual advancement.

VI

The Māhāyāna reconciliation between higher wisdom and universal compassion is reiterated and expressed through symbolic language in Tāntric Buddhism, especially through sexual symbolism. This much-misunderstood, and even maligned, tradition is fundametally one with the central core of Mahāyānic thought. While setting the ultimate goal of mystic experience akin to that of the Buddha under the bodhi tree, it lays down its own mode of attaining the goal. Its final goal reveals its mystical identity. Moreover, like any Mahāyānic thinker, it lays the utmost stress on the synthesis of the two poles of a seeker's life: *prajñā* (wisdom) and means (*upāya*). The latter consists of adopting the best possible course of action in a situation that could raise him to a higher plane on the way to *prajñā*. Passivity characterizes the state of wisdom and activity that of means or upāya. This encouraged the vajrayāna thinkers to use feminine symbols for the former and masculine symbols for the latter.

Sexual union provides these thinkers with the most convenient imagery to convey the synthesis of wisdom and means which obviously includes compassion and other ethical values along with the appropriate spells or mantras. The sexual union between a man or woman, a god or goddess illustrates the inner integration of wisdom and compassion (Karuṇā) with the means (Upāya) or dynamic aspect of the mystical ascension of an aspirant. This integration of apparent opposites is considered indispensable for the mystic awakening. The union (maithuna) of the female goddess 'yum' with the male god 'yab' results in the eternal bliss (mahāsukha) of mystic realization. The influence of Hindu Tantra appears pronounced when the Kālacakra Tantra recounts the Buddha's teaching that the body can also be the instrument of Enlightenment in this age of degeneration (Kali Yuga).

VII

Buddhist mysticism attains one of its tallest summits in the conception of 'Satori' in Ch'an or Zen Buddhism. This tradition reaffirms the original mystical orientation of the Buddha's teachings, especially with regard to the determination of the goal of a Buddhist aspirant as consisting in the attainment of mystic experience that would result in a total transformation of one's being. Deriving its name from the Sanskrit term for meditation 'dhyāna', Zen Buddhism lays stress or mediation as the highway to enlightenment. It traces its origin to the sage Kāśyapa who is credited with having reaceived his instruction from the Buddha himself. The Lankavatar Sutra records such an association between the master and the disciple.

'Wu' in Ch'an Buddhism and 'Satori' in Zen Buddhism (the latter is an extension of the former) refer to the state of Enlightenment in which the Buddha-nature of the entire gamut of reality is revealed. These schools declare emphatically that the enlightened aspirant can never communicate the objective pole of his mystic experience because it surpasses the concepts and categories of the customary speech. Satori (or Wu) transcends the subject-object duality and so it can never be expressed by any book, teacher, sermon, etc. The only path leading to Satori (or Wu) is one's own personal religious experience. It cannot be achieved either through the intellect or empirical experience. It is an inner, intuitive experience, which is absolutely ineffable. Satori is identical with the experience that transformed Prince Siddhartha into the Enlightened One-the Buddha. The means of obtaining it is also quiet sitting and meditation (zazen) atleast in the largest sect of this school known as Sōtō.

VIII

Our appraisal of Buddhist mysticism leads us to affirm that it conforms to the basic postulates of mysticism and reveals itself as more a mysticism than a religion. It is in the name of mysticism as the alpha and omega of religion that it revolted against the ritualism of pre-Upanșadic Hinduism. We have already made a short reference to the affinity between Buddhist and Upanișadic mysticism. There are many more very fundamental points of agreement between these two traditions that ascribe priority to intuitive religious experience over conformity with the external aspects of religion. The Buddha's leave-taking advice to his followers to be lamps unto themselves is an indication of his re-evaluation of the nature of religious life. It also fundamentally conforms to the basic postulates of mysticism as the power of human intuition to penetrate into the very heart of Reality, as the necessity of moral preparation, as the inner individual having the potentiality for transcendental expansion or realization, as the achievement of a state of Enlightenment and Liberation as the culmination of the mystic's life, etc.

Despite the difference in terminology, the Buddhist 'bodhi' denotes almost the same experience as referred to by the Sufi 'Vision' called in Arabi 'Mushahadāh'.This vision equips the aspirant with absolute certainty (Yaqin) which is beyond the ken of the intellect and which cannot be conveyed by the illuminated self (ru'yat al-qalb) to a non-illuminated self. It is also a basic postulate of Buddhist mysticism that each aspirant has to achieve his own Illumination in the depths of his own being. It's a sort of mystical monadology that Buddhist mysticism adheres to.

The priority of the mystical substructure over the theological and ritualistic aspects or expressions of religion places Buddhism among the heigher religions of the world. The focus of a higher religion must be the integration or reconciliation of religious experience, reason and the moral-cum-spiritual elevation of mankind. It must be imbued with a universal spirit, which must not divide mankind into the saved and the condemned, into the believers and the infidels. Being based on a firm mysitc foundation, Buddhism eminently qualifies for this position.

Moreover, this priority of the mystical over the ritualistic and the theological demonstrates that the characterization of the Buddhist doctriness as "ethical idealism"[17] is an understatement. If it is unable to satisfy the architectonic requirements of human reason,[18] then, it cannot be considered one of its demerits. Rather its mystical orientation and its repeated emphasis on the inadequacy of reason and language adequately account for this inability. Thus, instead of saying that the Upaniṣadic metaphysics must supplement the Buddhist doctrine, we had better say that the applied or practical dimension of Buddhist mysticism with its accent on loving kindness (mettā) and compassion (karuṇā) has the potentiality of adding a human touch to Hindu mysticism which is usually charged with such a lacuna. One can venture the thesis that one of them emphasizes the metaphysical expression and the other the practical, social application of a single evolving mystical tradition that was bent on redefining the religious life of India with an outright rejection of Vedic ritualism and castegoverned orthodoxy and ethical-system.

NOTES

1. L'Della Vallee Poussin and E.J.Thomas, "*Mysticism (Buddhist),*" *Encyclopaedia of Religion and Ethics,* Vol. IX, p.85.
2. John Hick, " *Mystical Experience as Cognition*" in Richard Woods (Ed.) "*Understanding Mysticism",* New York : Image Books, 1980, p. 422.
3. See Henry Clarke Warren, "*Buddhist Discourses*", New Delhi: Asian Publication Services, 1980, P. 339, (*Emphasis mine*).
4. See S.K.Ghose, " *Mysticism*", Encyclopaedia Britannika, Vol. 15, Chicago: Ency. Brit. Inc., 1984, p. 786.
5. *Ibid,* p. 338.
6. *Ibid*, p. 343.
7. See Herbert V. Guenther, " *Buddhist Mysticism*", *The Encyclopaedia Britanika*, (14th Ed.), Vol. 3, p. 415.
8. "*Buddhist Discourses*",*Ibid*, p. 349.
9. *Op. cit.*
10. Saṁyutta Nikāya (1069-76), Conze's translation, Quoted in Jaidev Singh's "Introduction" to *The Conception of Buddhist Nirvāṇa* by Th. Stcherbatsky, Delhi: Motilal Banarasidas, 1977, p.27
11. *Ibid.*
12. *Ibid.*
13. See R.C. Hume (trans.), "*The Thirteen Principal Upaniṣads*", Delhi: Oxford University Press, 1983, p. 392.
14. See the *Buddha Charita* by Ashvaghosha, translated by E.B.Cowel in *Buddhist Mahayana Texts,* in *The Sacred Books of the East,* ed. by F. Max Muller, (Vol. XLIX), Delhi : Motilal Banarasidas, 1985, p. 155.
15. *Ibid, p.* 157.
16. See the "Introduction" Richard Woods (ed) "*Understanding Mysticism*", New York : Image Books, 1980, p.6.
17. See Dr. S. Radhakrishanan "*Indian Philowsophy*", Vol. I, Chapter VII, Delhi: Oxford Universtiy Press, 1992.
18. *Ibid*, p. 470.

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WITTGENSTEIN AND TAGORE

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Wittgenstein did his philosophy in an age overwhelmingly dominated by science, but his sympathy lies with classical themes. Wittgenstein once famously said that he contemplated the current of European civilization without sympathy and claimed further that he was really writing for the friends who are scattered throughout the corners of the globe. It is remarkable feature of Wittgenstein's philosophy that he seems to subscribe to contextualism at some places and decontextualizes his own cultural context often in his thoughts. Many a time his work showed strong sense of appreciation for cross-cultural experience. The context of time and space when and where he was doing his philosophy, could not confine his concerns for the world at large. Particularly, when the question as to 'what really matters in human life' arises, Wittgenstein broadens his horizon to gain insights from seemingly far fetched-quarters, from mystics and poets like Tagore.

Rabindranath Tagore was one of the rare philosophers whose direct influence can be traced on Wittgenstein's philosophy. A few Wittgensteinians have touched on his fascination for Tagore's mystical poems and his liking for some of the latter's plays. This Indian connection of his work needs to be explored in order to add a new dimension to the Wittgenstein scholarship. The present paper is an attempt in this direction. For this purpose, I wish to bring to light the main occasions when Wittgenstein showed this deep interest in Tagore. I shall also try in this paper to look into some related aspects, the reasons and ramifications of Wittgenstein's interest in Tagore.

1.

There are two note-worthy occasions in Wittgenstein's philosophical development when we find him under the deep influence of Tagore. First, it was early 1920s when Wittgenstein read Tagore's *The King of the Dark Chamber.* Initially, he was not gripped by the play. Wittgenstein wrote to one of his close friends, Paul Engelmann:

> ....I have now read *The King of the Dark Chamber.* The play has not really made a deep impression on me, although the great wisdom is manifest in it or possibly just because of the.... Perhaps I don't understand his tone... It is possible, that here the translation leaves a chasm which I cannot bridge. I read *with interest* throughout, but without being gripped[1].

But, after rereading, his initial impression about the play changed dramatically. As Ray Monk has observed :

> Just a few months after this, he wrote to Hansel saying that he had been rereading Tagore, 'and this time with much *more* pleasure'. 'I now believe', he told Hansel, that there is *indeed* something grand here. *The King of the Dark Chamber* subsequently became one of his favourite books, one of those he habitually gave or lent to his friends[2].

Interestingly enough, Wittgenstein prepared a translation of it in collaboration with Yorick Smythies. A copy of their translation of a part of the play was found among Smythies's papers[3]. This translation was perhaps intended to bridge the chasm felt by Wittgenstein in his initial reading of the play.

2.

The second occasion, when Wittgenstein was noticeably under the influence of Tagore, fell on late 1920s. The Indian poet was 'much in vogue in Vienna at that time'[4]. It has been mentioned that

> In 1927 and 1928 at meetings with Schlick and one or two others Wittgenstein often would not discuss philosophical topics but preferred to read out poetry, particularly the poetry of Tagore[5].

It was the time when Wittgenstein attended a few meetings with the chosen members of Vienna Circle - Schlick, Waismann, Carnap and Feigl. It has now been well acknowledged that during those discussions, Wittgenstein on occasions lost patience with their certainties and positivist approach to philosophical problems. He often turned his back on his audience and read aloud Tagore's poetry. It is said that 'he was charmed by Tagore and enjoyed reading him'[6]. For the present, as Martin Stokhof suggests, 'it is exciting to speculate whether perhaps the following was one of the verses Wittgenstein read to Carnap and others :

> A mind all logic is like a knife all blade :
> It takes the hand bleed that uses it'[7].

3.

Let us discuss the two occasions one by one. Why did Wittgenstein like Tagore's *The King of the Dark Chamber* so much ? The reason behind it is interesting one. As Ray Monk points out, "The play is an allegory of religious awakening, and it echoes many of Wittgenstein's thoughts on the subject"[8]. There is a great deal in it to fascinate his imagination. This play dramatizes the mystical dealings of the divine with the human heart. In this drama, symbolism has full play: The *King* represents God, the *Queen* stands for man's self and the *Dark Chamber* symbolizes the inner heart. King's subjects never see him, so his existence is a matter of varied speculations among most of them. But there are also a fortunate few, like the maidservant, Surangama, who are so devoted to the King that 'they do not want to *see* him; they know him to be a being without comparison'.

A telling part of the play is the conversation between the maidservant and the proud queen, Sudarshana:

> ***Surangama:*** The large door has opened.. He is coming; my King is coming.
> ***Sudarshana:*** How can you perceive when he comes ?
> ***Surangama:*** I could not say: I seem to hear his footsteps in my own heart. Being his servant in this dark chamber, I have developed a sense - I can know and feel without seeing
> ***Sudarshana:*** Would that I had this sense too, Surangma !
> ***Surangama:*** You will have it, O queen...this sense will awaken in you one day. Your longing to have a sight of him makes you restless, and therefore all your mind is strained and wrapped in that direction. When you past this state of feverish restlessness, everything will become quite easy.
> ***Sudarshana:*** How is it that it is easy to you, who, are a sevant, and so difficult to me, the Queen ?

Surangama: It is because I am a mere servant that no difficulty baulks me..[9].

In this way, 'the play concerns the awakening - or one might say, the humbling, the subjugation - of the King's wife, Sudarshana'[10]. The conversation between Surangama and Sudarshana occurs in Act II of the play. This was also the part of the play translated by Wittgenstein. According to Monk,

> Wittgenstein's translation of Tagore might fruitfully be read in conjunction with his lectures on religious belief, for in those passages he translated, Tagore expresses Wittgenstein's own religious ideals. That is, like Surangama, Wittgenstein did not wish to see God or to find reasons for his existence. He thought that if he could overcome *himself* - if a day come when his whole nature 'bowed down in humble resignation to in the dust' - then God would, as it were, come to him, he would then be saved[11].

4.

Wittgenstein's reading of Tagore's poetry in the midst of Schlick's circle was not anyway a casual activity. It was fully intended recitation. In words of Ray Monk, "In particular - as if to emphasize to them, as he earlier explained to von Ficker, that what he had not said in the *Tractatus* was more important than what he had - he read them the poems of Rabindranath Tagore..."[12]. Wittgenstein thus intended to provoke them to think something 'grand' insofar as 'all that really matters in human life' is concerned. He knew that poetry could be an effective form of discourse in that direction.

Great poetry has generally an analogic character and it works through the power of suggestion and overtones. 'The height of poetry', in the words of Santayana, 'is to speak the language of god' [13]. 'Poetry is indeed something divine', says Shelly[14]. Tagore's poems epitomize this quality of poetry. As Gilbert Murray wrote in a letter to Tagore that the latter succeeded "in saying things that are in our minds, but which we cannot quite bring out"[15]. In a similar vein, Wittgenstein's correspondence with Paul Engelmann reveals that he considered poetry as a mode of "showing" things *that cannot be said*[16]. According to R. E. Lemoine, "Wittgenstein knew, even at an early age, that the world did not need the forced unity of some *Ubermensch*, but an artistic unity which, in the long run, only poetry can provide"[17]. It was this understanding that 'led Wittgenstein to read Tagore to the Vienna Circle when, according to Carnap, most of the Circle wanted to talk science'[18].

In hindsight, the third decade of the twentieth century was the period of Tagore's grand success in the West as a poet. It was also the post-war period and a high time for people to think back on the futile attempt at self-destruction. As Alex Aronson has said, "There existed at that time a very real desire for a re-valuation of standards all over Europe. Rabindranath, in his own inimitable language, expressed the need of the hour better than any other writer at that time"[19]. Incidentally, Tagore's success abroad reached its climax in Germany. The country was passing through a spiritual crisis at that time. So Germans generally saw Tagore as a light of hope and his poetry as a source of awakening. Andre Gide worte, "The youth of Germany looks toward the East and turns its back to Europe"[20].

Thus, as H.J. Glock puts, "it is not difficult to see why Wittgenstein occasionally interrupted philosophical discussion by turning his back on the other and reading aloud the poetry of Indian mystic Togore"[21].

5.

Wittgenstein's feeling of affinity with Tagore and his conviction of poetry as the means to *show* the unutterable are particularly noticeable in his earlier thinking. But, deep down, this strain of his thought remains intact in his later philosophy too. Late in his life, Wittgenstein wrote :

> People nowadays think, scientists are there to instruct them, poets, musicians etc. to entertain them. *That the latter have something to teach them;* that never occurs to them. (*CV*, p.42)

Wittgenstein's distinction between *saying and showing* 'persists in transmuted form, from *Tractatus* through his last writings'[22]. In one of his later remarks Wittgenstein says:

> Do not forget that a poem, even though it is composed in the language of information, is not used in the language game of giving information (*Zettel*, sec. 160).

It is rightly said that, "there is nothing in the notion of language game to preclude the distinction between the inexpressible and the expressible'[23]. So we often experience the echoes of Wittgenstein's earlier mystical themes in his later thoughts. In one of his fairly later remarks, Wittgenstein says:

> The inexpressible (what I find enigmatic and cannot express) perhaps provides the background, against which whatever I was able to express acquire meaning (*CV*, p.23).

There is yet another even later remark or Wittgenstein that conspicuosly brings us back to the 'mystical' of the *Notebooks* and the *Tractatus*:

> For a human being the eternal, the consequential is often hidden behind an impenetrable veil. He knows: there is something under there, but he cannot see it; the veil reflects the daylight (*CV*, p.92).

This entry in *CV* is dated 1949 just a couple of years before Wittgenstein's death. What Wittgenstein wanted to convey through the wonderful image - 'a veil often hiding the eternal from the sight of the human by reflecting the light' - is reminiscent of the Upaniṣadic outlook. *Isha Upaniṣad* says, "The face of truth is concealed by a golden vessel. Do then, O sun, open it so as to be seen by me who am by nature truthful" (15). In Vedantic terminology, 'the veil' is analogous to maya, which not only 'hides' (*āvaran*) 'the eternal' (*Brahman*) from the sight of ' a human being' (*jiva*), but it also 'reflects the daylight' and presents the eternal reality as phenomenal world (*vikṣepa*).

6.

The final outcome of reading Tagore's poetry by Wittgenstein in the Circle and discussions with the logical positivists was bound to be dramatic. Logical positivists later realized what was really intended 'when Wittgenstein read Tagore to them rather than discuss philosophy'[24]. For, Tagore's poems express a mystical outlook diametrically opposed to the rigid scientific world-view of positivists. 'It soon became apparent to Carnap, Feigl and Waismann that the author of *Tractatus Logico-Philosophicus* was not the postitivist they had espected'[25]. Thus they 'understood their mistake'[26].

What Carnap wrote in his 'Autobiography' about Wittgenstein temperament and concerns also gives us a clear indication of the latter under the influence of Tagore's mystical outlook. According to Carnap,

> His (Wittgenstein's) point of view and his attitude towords people and problems, even theoretical problems, were much more similar to those of a creative artist than to those of a scientist: one might almost say, *similar to those of a religious prophet or seer.* When he started to formulate his view on some specific philosophical problem, we often felt the instant struggle that occurred in him at that very moment, a struggle by which *he tried to penetrate from darkness to light* under an intense and painful strain which was even visible in his face. When finally, sometimes after a prolonged arduous effort, his answer came forth, *his statment stood before us like a newly created piece of art or divine revelation*[27].

Carnap's portrayal of Wittgenstein participating in the Circle reminds us the famous meeting of Tagore with Russell in Cambridge garden. In that meeting Tagore sang some of his songs and then 'passed into a higher state of consciousness'[28].

7.

The most-quoted concluding sentenceof the *Tractatus* is very important for the present. As E. W. F. Tomlin has obseved: "There is a limit to what can be grasped by reason alone. All the great philosophers, above all the oriental sages, have recognized the fact; and Wittgenstein, who was a sage in his way, observed in the end of the *Tractatus Logico-Philosophicus,* 'of that whereof we cannot speak we must be silent'"[29]. Thus the conculsion of the book 'is not a simple tautology but profound mysticism'[30]. It makes room for mysticism of the Upanisadic flavor. *Taittirīya Upaniṣad* tells us that Brahman is beyond our reason, and so it beggars speech too: "Speech and thought recoils from it failing to find it" (ii,4). Wittgenstein wanted to indicate similar significance of silence.

This gives us also the reason as to why Russell was so uncomfortable with Wittgenstein's idea of the 'inexpressible'[31]. In this regard Wittgenstein's position is not very different from Tagore's. It is also not difficult to see a parallel between the concluding remark of the *Tractatus* and the Tagore's famous quotation to Russell from the *Upaniṣhads* :

> From him words, as well mind, come back baffled, Yet he who knows the joy of the Brahman (the Infinite) is free from all fear[32].

Furthermore, like Tagore, Wittgenstein was against authoritarianism, particularly in religious matters. His recognition of mysticism and the incorporation of mystical themes into his early philosophy bring him close to Tagore. But for the tradition of prophetic religions, mysticism has basically been an unorthodox tendency or even a foreign element of Indian origin. It is not difficult to find, as Radhakrishnan has said, 'enough justification for regarding the mystic element in the West as Indian'[33]. So H.J. Glock has rightly pointed out, "This (mysticism) is traditionally defined as the experience of a union with God or the universe. Throughout his life, Wittgenstein was attracted to unorthodox religious figures (Tolstoy, Kierkegaard, Tagore)"[34].

8.

Finally, turning to a work of art and its intimate connection with morality and the mystical, we find Wittgenstein again in close affinity with Tagore. Tagore 'repeatedly refers to art as spiritual, especially music, painting and literature. Morality is also praised as spiritual activity. He also speaks of our consciousness of an ideal in every sense as spiritual'[35]. Wittgenstein's philosophy of art resonates with similar themes and feelings.

For instance, in one of his later remarks, Wittgenstein speaks of 'the miracles of nature' in the spirit of Tagore's poetry:

> ...*art* shows us the miracles of nature. It is based on the conception of the miracles of nature. (The blossom, just opening out. What is marvelous about it ?). We say: 'Just look at it opening out !' (*CV*, p. 56).

A scientist may not find anything marvelous either on the trees in blossom or in the world at large. For, a thing of marvel transgresses contingent matters of fact. A piece of art always leaves us with something more that can be summed up in its elements. Wittgenstein remarks,

> .... it is absurd to say 'Science has proved that there are no miracles'. The truth is that scientific way of looking at a fact is not the way to look at it as a miracle' (*WR*, p. 295).

Imagination is essential to art, and imagination 'works at surplus'.

In the words of Tagore, 'our imagination makes us intensely conscious of a life we must live which transcends the individual life and contradicts the biological meaning of the instinct of self-preservation'[36]. Art shows "the surplus in man" through the power of imagination involved in it. Tagore says, "Man has a feeling that he is truly represented in something that exceeds himself"[37]. Similarly, according to Wittgenstein, "Man feels the urge to run up against the limits of language" (*WVC,* p.68). At one place he speaks of 'excess in language' in the manner of Tagore:

> ... Our words used as we use them in science, are vessels capable only of containing and conveying meaning and sense, ***natural*** meaning and sense... as a teacup will only hold a teacup full of water and if I were to pour out a gallon over it (LE).

This powerful image to teacup shows the radical inadequacy of our ordinary language in dealing with the *supernatural* or mystical.

In his later thoughts too, Wittgenstein makes a signifincant distinction between "seeing" and "seeing-*as*" (*PI,* II, xi). He opens the discussion on this distinction with a psychological setting, but goes on to give valuable insights into all that really matters in life-ethical, aesthetic and religious. In plain "seeing", there is hardly any role for imagination. But, 'in conversation on aesthetic matters we use the words: "You have to see it like *this,* this is how it is meant" (*PI*, p.202). Thus the role of imagination becomes vital in "seeing-*as*". Further, from the Wittgensteinian point of view, 'the really serious and important service of imagination is ethico-religious'[38].

Our ways of looking at things really makes a world of difference. For instance, returning to the *Tractatus,* we normally see that 'the world divides into facts' (*TLP*, 1.2), but it can also be seen as 'the world *sub specie aeterni' (TLP,* 6.45). So Wittgenstein says, "The world of a happy man is different from that of a unhappy man" (*TLP*, 6.43). Thus, from Wittgensteinian point of view, 'someone who has a religious belief sees things differently from someone who has no such belief. The world looks different to him. He sees religious and moral significance in the very existence of the world'[39].

According to K. T. Fann, "Wittgenstein, above all, was an *artist* who created a new style of thinking, a new way of looking at things"[40].

For Wittgenstein, 'the work of art is the object seen *sub specie aeternitatis*', and the good life is the world seen *sub specie aeternitatis*" (NB, p. 83). Thus, "the work of art compels us - as one might say - to see it in the right perspective, but without art the object is a piece of nature like any other" (*CV*, p. 7). For 'only something supernatural can express the supernatural' (*CV*,p.5).So Wittgenstein sums up his ethics as: "What is good is divine too" *(ibid.)*. A thing of beauty is divine alike, since "ethics and aeshetics are the same." (*TLP*, 6.42). At the last count, for Wittgenstein, 'logic, ethics and aestheitcs are based on a mystical experience, namely marveling not *how* the world is but *that* it is'[41]. This parallels the Indian ideal of '*Satyam-Shivam-Sundram*'.

NOTES

Abbreviations: *CV: Culture and Value (ICPR, N. Delhi, 1998 Edn); LE: 'A Lecture on Ethics'; NB: Notebooks 1914-16; PI: Philosophical Nestigations: TLP: Tractautus Logico-Philosophicus; WR: The Wittgenstein Reader; WVC: Wittgenstein and Vienna Circle; Z: Zettel.*

1. Paul Engelmann, *Letters from Ludwig Wittgenstein With a Memoir*, Basil Blackwell, Oxford, 1967, p.47.
2. Ray Monk, *Ludwig Wittgenstein: The Duty of Genius*, Vintage Books, London, 1991, p. 408; *See* also, Paul Engelmann, *op.cit.*, p. 47 n l.
3. Ray Monk has brought to our notice that a typescript of their translation of Act II of the play was found among Smythies's papers. It was headed as: "THE KING OF THE DARK CHAMBERS, by Rabindranath Tagore (*sic*) *translated from* the English of Rabindranath Tagor *into* English used by *L. Wittgenstein* and Yorick Smythies, by *L. Wittgenstein* and Yorick Smythies. See *Ibid.*
4. *Ibid.*, p. 243.
5. Paul Engelmann, *op. cit.*, p. 47n l.
6. Suresh Chandra, 'Discussions', *JICPR*, Vol. XXI, No. 3, 1995, p.116.
7. The poem is from Tagore's 1916 collection *Starry Birds; vide*, M. Stokhof, *World and Life as One: Ethics and Ontology in Wittgenstein's Early Thoughts*, Stanford University Press, California, 2002, p. 142.
8. *Ibid.*, p. 409.

9. Rabindranath Tagore, *The King of the Dark Chamber,* McMillan, 2001 (Pocket Edn Reprint), p. 46-7.
10. Ray Monk, *op.cit.,* p. 409.
11. *Ibid.,* p. 410.
12. *Ibid.,* p. 243.
13. See, R.C. Baldwin and J. A. S. McPeek, *An Introduction to Philosophy through Literature,* The Ronald Press Company, New York, 1950, p.4.
14. *Ibid.,* p. 65.
15. Quoted in , Alex Aronson, *Rabindranath through Western Eyes,* Rddhi-India, Calutta, 1978, p. 26.
16. In 1917 Englemann sent Wittgenstein a poem by Ludwing Upland called 'Count Eberhard's Hawthorn'. Wittgenstein's response to the poem was significat: "The poem by Upland is really magnificent. And this is how it is: if you do not try to utter what is unutterable then *nothing* gets lost. But the unutterable will be - unutterably - *contained* in what has been uttered!" Quoted in, Paul Engelmann, *op.cit.,* p.7.
17. R.E. Lemoine, *The Anagogic Theory of Wittgenstein's 'Tractatus',* Mouton & Co., The Hague, 1975, p. 76.
18. *Ibid.,* p. 77.
19. Alex Aronson, *op.cit. p.26.*
20. Quoted in *Ibid.,* p. 25.
21. H. J. Glock, "Wittgenstein and Reason", *Wittgenstein : Biography and Philosophy,* ed. by James C. Klagge, Cambridge University Press, 2001, p. 208.
22. Peter Winch, (ed.), *Studies in Wittgenstein's Philosophy,* Routledge & Kegan Paul, London, 1969, p. 1.
23. Barreth, C., *Wittgenstein and Religious Belief,* Basil Blackwell, Oxford, 1991, p. 253.
24. *Ibid.*
25. Ray Monk, *op.cit.,* p. 243.
26. C. Delacampagne, *History of Philosophy in the Twentieth Century,* Trans.,

M. B. De Beroise, John Hopkins University Press, Baltimore, 1999, p.50.

27. Rudolf Carnap, "Autobiography", in, *The Philosophy of Rudolf Carnap*, (ed.), Paul Schlipp, Open Court, LaSalle, Ill., 1963. (*Italics mine*).
28. *See*, Alex Aronson, *op.cit.*, pp. 12-3.
29. E.W.F.Tomlin, *Philosophers of the East and West : The Quest for the meaning of existence in Eastern and Western Thought,* Ajanta Publications, Delhi, 1988, p.4.
30. S. Radhakrishnan, *Eastern Religion and Western Thought,* Oxford University Press, 8th PB impression 1997, p. 293. *See also, A Dictionary of Believers and Non-Believers,* Progress Publishers, Moscow, 1989, p. 221; and also *The Cambridge Dictionary of Philosophy,* 2nd Edn, 1999, p. 346.
34. H. J. Glock, *Wittgenstein Dictionary,* Blackwell Reference, Oxford, 1996, p. 251.
35. C. A. Moore, "Tagore on Spirituality, East and West", in M. Kulasherstha (ed.), *The Genius of Tagore,* Vishveshvarananda V.R. institute, Hosiyarpur, 1961, p. 32.
36. Rabindranath Tagore, *The Religion of Man,* George Allen & Unwin Ltd, London, 1961, p.33.
37. *Ibid.,* p.36.
38. W.H.Brenner. Wittgenstein's *Philosophical Investigations,* State University of New York Press, 1999, p.84.
39. C. Barrett, *op.cit.,* p. 143.
40. K.T.Fann, *Wittgenstein's Conception of Philosophy,* Basil Blackwell, Oxford, 1969, p. 109-10.
41. H. J. Glock, *op.cit.,* p. 31.

DASEIN AND CREATIVITY : A NEW READING OF HEIDGGER

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There are many readings of Martin Heidegger's analysis of the ontological structure of Dasein. Although these readings disclose important aspects of the Heideggerian notion of Dasein none of them engage directly in a discussion on creativity. Even Heidegger does not give details explicitly on the significance of this activity for the being of Dasein. This paper is a new reading of Heidegger's notion of Dasein. I try to I explore Heidegger's departure from the Cartesian tradition in order to vindicate the idea that creativity is an ontological condition or another 'existential' for the being of Dasein. Creativity is the characteristics of an entity whose being is the poorest of all because it is infected by nothingness.

If we assign a starting point to the way of Heidegger's analysis of Dasein, it is important to deal first with the Cartesian doctrine of the self-substance against which Heidegger develops his own notion of human existence. This, in my opinion, can be seen as a significant philosophical departure from the Cartesian tradition after Neitzsche's attempt to end metaphysis, and inaugurates a new epoch in the philosophical thinking of our time.

In approaching this problem we find Heidegger's relationship with Descartes to be primary rather than secondary. Most notably in the winter semester of 1923 at Marburg three years before publishing his major work *Being and Time* (1927) while lecturing on "Modern Philosophy", Heidegger, unlike Husserl, began to discover Descartes as his opponent and gave a negative account of his philosophy. It is evident that what Descartes has undertaken in his philosophical inquiry is the problem of 'certainty' rather than ontology. His aim is simply at demonstrating true knowledge. Form the beginning Cartesian philosophy is engaged with epistemology. When we read the Meditations, we find 'Doubt' to be employed to examine the

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reliability of our knowledge. Taking the method of doubt into consideration, this is seen as a step to disclaim the possibility of true knowledge, and a necessary position form where the truth appears to be concealed, and not known. All our beliefs, prejudices and knowledge of the objects and events in the world even the existence of the world, as well as our own bodies are swept away in this skeptic jargon. All judgments are suspended until a certain foundation on which true knowledge stands is found. With the rise of certainty everything, (including the existence of the world) will be rediscovered and the withdrawal from the world will be ended. The method of doubt is a disengagement of consciousness from the world for the sake of engagement with it. It is a temporal procedure and a precaution to avoid admitting dogma without examining its true nature. The scope of doubt gradually narrows down and becomes less universal and operational. It ends with the existence of the self in the Second Meditation where Descartes makes his famous statement "I think therefore, I am." This statement, known as *cogito* signifies that one can doubt the existence of everything other than his/her own existence as a thinking-being. The *cogito* verifies itself as the only self-evident truth, which does not require any proof. It emerges as a certain fact. Its negation is self-defeating and self-contradictory and becomes the point of departure in Descartes' philosophical inquiry.

Following what Descartes has discovered in the Second Meditation, we reach the point that the proof for one's existence indicated in the second part of the statement depends on the first part of the *cogito*. Thinking becomes a ground for existence. The second part, "I exist", or "I am" rests ontologically upon the first part "I think". Thinking in its relation to existence stands as a grounding ground and determines the way human beings are. Accordingly, a human being is defined as a thinking being.

> Thinking ? At last I have discovered it-thought; this alone is inseparable from me. I am, I exist, that is certain. But for how long ? For as long as I am thinking. For it could be that were I totally to cease from thinking, I should totally cease to exist. At present I am not admitting anything except what is necessarily true. I am, then, in the strict sense only a thing that thinks; that is, I am a mind, or intelligent, or intellect, or reason- words whose meaning I have

> been ignorant of until now. But for all that I am a thing which is real and which truly exists. But what kind of a thing ? As I have just said - a thinking thing. [1]

This understanding of the human existence considers thinking the activity of an entity namely, the self-substance that can exist by itself independent of the body. This, however, is not distinct form the way Judeo-Christian and Islamic theology interprets human existence as an incorporeal entity distinct from the body. In other words, what Descartes has tried to demonstrate is that human existence in the world is the mixture of worldly and transcendent elements that are not necessarily connected. The thinking-substance as something transcendent does not rely on the extended-substance to exist. The self and the body interact without depending on each other for their existence.

Having this distinction between the self and the body in mind and apprehending the differences between them, Descartes has made the conclusion that the self, unlike the body, is unchangeable and the same otherwise it would not be distinct form the body. The self as a thinking substance should resist change, and is the self-same bearer of all sorts of cognition and different experiences. The notion of self-sameness of the self is again derivative from the metaphysical understanding of human existence as a thinking-substance. This idea is originally Platonic and Descartes advocates the idea of the self sameness of this entity under the sway of Plato's metaphysics and Aristotle's logical principle of identity. Descartes' attempt to depict a new metaphysical ground for the existence of the self is beset with certain problems. His analysis of the ontological structure of this being is essentially Platonic.

There are also two serious philosophical consequences of his analysis : first although the self remains identical and the same through out physical changes of the body, the primary relationship between the self and the world appears to be one-dimensional and based on the theoretical attitude of the self towards the world. The self stands in this relationship to the world as a spectator and separated from it. Second, Descartes believes that the self is better known than the body because it is unchangeable, but this does not elucidate how the other as another incorporeal self-substance is known by the self. In this theoretical attitude of the self the other could recede from knowledge of the self and hence becomes unknown. How could the self know the other when the other, unlike a material object for thinking, is another self - substance ? Descartes' self - substance theory has not been able to recognize the seriousness of these two problems and fails to deal with the complexity of the application of its account of human existence when the question of interpersonal relationship arises.

Generally speaking, the Cartesian theory of self-substance contains three assumptions :

i. The belief in the existence of the self distinct from the body.
ii. The self is unchangeable and identical.
iii. The emphasis on the priority of epistemological (theoretical) relationship between the self and the world.

Against these three assumptions Heidegger has come with a new inspiration to give a new interpretation of human existence. His interpretation is a challenge aiming at constructing a different ontological foundation for the existences of this kind of being and is based on our understanding of its unique ontological structure. His main arguments and the focus of his critique of Descartes in his major philosophical work *Being and Time* are the following :

i. Rejection of the ontological structure of the transcendent self or the theory of self-substance.
ii. Rejection of the primacy of the epistemological relationship between the self and the world.
iii. Rejection of mind-body dualism
iv. And then, Heidegger believes that *res cogitans* presupposes its own ontological ground.

What makes the Cartesian *cogito* significant for the subsequent philosophers particularly the Existentialist thinkers is that it is a new starting-point in modern philosophical thinking. But the problem, which arises here with this new starting point is that Descartes has failed to grasp the unique character of the ontological structure of human existence. Hence the fundamental ontological question of the meaning of Being of the *res cogitans* is neglected.[2] The certainty of one's existence has relied, in his interpretation, on something less fundamental than existence and without realizing that thinking presupposes an ontological ground for its existence. The Cartesian '*cogito sum*' is an investigation into the characteristics of the human existence, "at least within certain limits." [3] By contrast, for Heidegger, the human existence cannot be defined by fixed attributes but by possibilities or more clearly the projects undertaken for fulfilling itself.

The priority of existence to *res cogitans* is not like the priority of a cause to its effects. Existence does not stand as a cause, and *res cogitans* is part of its manifestation. The priority of existence is like the priority of the ground to the grounded in the sense that the grounded does not exist without the ground. Descartes has realised the priority of a ground because he believes that the certainty of the *cogito* presupposes the existence of a non-deceiving God, and in such a way the substantiality, which the self has, becomes actual when it is related to God's existence but he has not been able to understand its unique ontological structure or as clarified by Heidegger, Descartes' mind was still under the sway of medieval ontology which considered the *res cogitans* as an entity, and the meaning of Being of this entity was understood by the medieval thinkers as something created "*ens increatum*". But creation as 'somethings's having been produced' is the structure of the ancient conception of Being. [4] For this reason as I understand the Cartesian *cogito* will be disqualified as a philosophical beginning for a new ontological system because it is not an undeduced beginning and the grounding ground of the grounded.

Heidegger rejects Descartes' analysis of the human existence as (the self substance thinking being) and describes it as '*Desein*' (being-here) or happening. 'Here' for Dasein does not signify a specific location, but the openness of being where all things are present in it. Dasein's openness is a different way of understanding spatiality. It belongs to the clearing to the field of possibilities. It cannot be reduced to a mere being-in-space of an entity such as chair in a room. The being-open of Dasein in space designates being-in-the-world intentionally toward things disclosing themselves. In light of the 'Da' of Dasein, which determines the openness of this being, we can talk about three main characteristics of Dasein;

i. Every Dasein understands its own being. This attitude of Dasein is at the same time the realisation of poossibilities that constitute its existence.
ii. Dasein's existence is incomplete and infected by nothingness. For

this reason it is in constant change towards self-completion. Its essence is defined by the projects undertaken by Dasein in the open field of the possibilities in history.

iii. Dasein's being is always at issue; it has to decide about its own being and comports itself towards that. Unlike *res congitans*, Dasein's authentic mode of existence is possibility, not actuality.

If Dasein is not a self-substance then what is the being of this entity? Is Dasein a general self or an individual ? Is it transcendent or historical ? Heidegger believes that Dasein is neither a general self like the universal ego in Fichte's metaphysics and *Geist* in Hegel's *Phenomenology,* nor transcendent like the self-substance as described by Descartes, Kant and Hussrel. In order to make a clear distinction between the being of Dasein and that of other entities, Heidegger designates 'existence' (*Existenz*) or (*Ek-sistence*) to Dasein rather than '*exostemtia*'.[5] Ek-sistnece and not '*existentia*', which describes Dasein's standing outside itself in the open field of possibilities of being-in-the-world, is the only adequate term to elucidate the unique meaning of human existence because the being of Dasein, unlike the self-substance is incomplete and dynamic. By contrast, '*existentia*' describes the existence of a stable entity ruled by the logical principle of identity with fixed essence. Dasein's essence (wesen) in Heidegger's analysis is a temporal process of concealing the truth of one's own being.[6] Dasein should not be understood as a special case of some genus of entities, because it is not an entity like a table for instance. The being of Dasein is a manner in which this being projects itself in the field of the possibilities, "Furthermore, Dasein is as entity which in each case I myself am. Mineness belongs to any existent Dasein, and belongs to it as the condition which makes authenticity and inauthenticity possible. In each case Dasein exists in one or the other of these two modes, or else it is modally undifferentiated."[7] We are ourselves Dasein and the entity to be analysed. In a seminal on the 8th of September 1959 in Zurich, three decades after publishing *Being and Time,* Heidegger reaffirmed his new analysis of the being of Dasein by stating that, "in the perspective of the analytic of Dasein, all conventional objectifying representations of a capsule like psyche, subject, person, ego, or consciousness in psychology and psychopathology must be abandoned in favour of an entirely different understanding. This new view of the basic constitution of human existence may be called *Dasein,* or being-in-the-world."[8]

The existential analytic of Dasein regards existence to be more primordial ontologically than *res cogitans.* Dasein is no longer seen as a thinking substance but as an existing-being in the world. My existence is nothing other than what unfolds in my life in history. There is no room for underlying *res cogitans* to play its role as a transcendent and complete entity and a spectator in history. My essence is determined by the way I comport myself towards my own possibilities. My whole life is nothing more than the execution of possibilities authentically or in authentically to constitute my existence. [9] Accordingly, those characteristics which can be exhibited in this entity are not 'properties' present-at-hand of some entity which 'looks' so and so and is itself present-at-hand; they are in each case possible ways for it to be, and no more than that. [10] The ontological structure of Desein needs to be understood in light of this unique character of its existence as a being, which has come into existence without essence, and its essence is determined by the way it exists. This, however, does not indicate that the ontological structure of Dasein is inferior to that of the other ontic entities, but rather essentially different.

Dasein, as a self-conscious being, is aware of its won uniqueness and tries to comport itself and appropriate it in understanding. It discloses the meaning of its own being as a being in the world with others. Heidegger argues in section 12 and 13 of *Being and Time* that the human existence belongs fundamentally to the world. Accordingly, and as mentioned before, Dasein is not an **a-historical** entity and a transcendent subject. The historicity of Dasein sheds new light on the being of this entity. It is not only a logical consequence of the rejection of the Cartesian theory of the self-substance but the ontological reality of Dasein. It draws a fine line of demarcation between the being of this being and that of other entities. For this reason, here in this discussion on human existence, we deal with a different type of temporality, which is inherited from the ontological structure of Dasein. In part 2 of the *Fundamental Problems of Phenomenology,* Heidegger insists on this distinction between the temporality of Dasein and the Physical time of the entities in the world. Dasein's temporality, as viewed by him, is a condition for the existence of this being to fulfil itself in history and disclosing the truth of its being.[11]

The fulfilment of Dasein is carried out through the disclosedness called 'understanding'.[12] In understanding Dasein discloses the meaning of being in the world as a possibility. Possibility as an existential becomes another ontological condition, which signifies that Dasein as a being is thrown into the open field of the possibilities and is constantly actualises them. Dasein is a being-possible, its being is characterised by "the possibility of being-free for its own most potentiality-for-Being." [13] The disclosedness of the possibilities is at the same time self-projection in which at every moment something new is created out of nothing. It is for the sake of projecting itself Dasein executes the possibilities by understanding them and creates what is not yet in the would. The self-projection is not a phenomenological fact but a necessary ontological condition. Heidegger has clearly stressed this point by saying that "projection has nothing to do with comporting oneself towards a plan that has been thought out, and is accordance with which Dasein arranges its being. On the contrary, any Dasein has as Dasein, already projected itself; and as long as it is, it is projecting. As long as it is, Dasein always has understood itself and always will understand itself in terms of possibilities." [14] As a consequence of this, since Dasein is a being, which is not yet any attempt to define an individual Dasein will be doomed to failure and is a misrepresentation, because Dasein is a being that has not achieved the totality of its existence and has not executed its final possibility.

Heidegger's interpretation of human existence and his insistence on the significance of self-projection of Dasein is a radical way of understanding the characteristics of this being. But how can Dasein accomplish this mission of its existence without being ontologically creative ? Before dealing with the answer of this question it is worth mentioning that the possibility of being for Dasein is also a beig -towards-death. [15] This being is thrown into the possibility of self-projection and at the sae time its being if finite. Death is the final, unsurpassable and non-relational possibility that gives an end to the self-projection of Dasein. In dying the wholeness or the totality of the being of Dasein is revealed and Dasein loses its being there by reaching its own totality. Death, in Heidegger's view, is not a transition from one modality of existence to another. It is the end of all possibilities and total annihilation of existence. It is not "Dasein's being-at-the-end [*zu-Ende-sein*], but a *Being-towards-the-end* [*Sein zum ende*] of this entity. Death is a way to be, which Dasein takes over as soon as it is." [16]

Now, two assumptions in Heidegger's analysis of human existence are imperative for my argument on the existential characteristics of creativity; first, the way this being is thrown into the open field of possibilities; and second its being towards the end. On the ground of these two assumptions we realise that the being of Dasein is the poorest of all, for its being is a mere possibility. An entity such as a table has a fixed quiddity and its existence is full. By contrast, Dasein's existence is not. We don't know the 'whatness' of this being because as long as it lives it is at the state of constant change and not finished yet.

Whatever we have said about the being of Dasein is an interpretation of its ontological structure or more precisely describing conditions of its existence rather that a definition, We know that Dasein's being is a possibility of projecting itself for the sake of fulfilling itself. But what a particular Dasein crates out of itself will not be known unless Dasein executes the final possibility of its existence. In addition to this lack and the finitude of its being, Dasein is ahead of itself. It transcends its past and present with care and devotedness to create itself. [17] If creativity is not an ontological condition for the existence of Dasein how could Dasein go beyond itself and become what it has not yet become. The possibility of self-projection of this finite being presupposes creativity. The need for self-projection is founded on creativity and is not historical but ontological because Dasein lives in poverty and lacks ontologically. Its being is nothing more than being possible and projecting itself. It prevails over its poverty and conquers the future. In this regard, creativity is not attributed to a kind of being, which does not suffer poverty and lack in its being. It is not the characteristic of a non-possible being such as Aristotle's pure actuality and Descartes perfect being whose existence is full and does not need to add anything to its essence.

Creativity, like understanding and projection, is the characheristics of the authentic mode of existence, Although Dasein is thrown to the world and determined by the everydayness of being there with others, it can still be its own possibility. But being inauthentic under unfavourable phenomenological circumstances of the everydayness is a possibility as well. In inauthentic mode of existence, Dasein loses itself and remains in a distance from itself. Heidegger describes this distance as, "a state of being in which all secrets lose their force." [18] The others become dominant and chose the possibility of Dasein, determine its future and no Dasein in the inauthentic mode of existence remains to win itself[19]. An inauthentic being is unable to find the power of creativity and is not in a position to project itself.

As mentioned before, creativity has not been seen as an ontological constitution of Dasein in the early works of Heidegger. In later period of his philosophical development creative thinking is found at several places as the focal point for the growing indifference towards philosophy and art. Heidegger believes that "... never was there such an "un-philosophical" epoch as the present one, and the reason is precisely the current proliferation of metaphysical needs.[20]" Creative thinking is the source of the work of art. It is the highest form of thinking, which manifests itself in poetry. In "... *Poetically, Man Dwells..*" (1951) Heidegger indicates that the poetic creation is a kind of dwelling of Dasein in the world that can be described as building. Building, in this sense is not erecting a terrace but creating something that is not yet in the world. By contrast, the unpoetic dwelling is defined as incapability to create, which is a dominant feature of calculative thinking of out technological epoch[21]. This does not mean that poetry is a substitute for philosophical thinking and replaces it. Philosophy and poetry are both the vehicles of creative thinking aiming at disclosing the truth of being. Heidegger also holds the view that our technological epoch has brought with itself 'calculation', 'acceleration', 'the outbreak of massiveness' and then in addition to these is a "total lack of questioning.[22]" Questioning will evolve when Dasein is engaged authentically in creative thinking and dwells artistically in the world. Art and not technology, creative thinking and not calculative are" the saving power" of humanit.[23].

What is concluded in this paper is no more than a modest suggestion that 'creativity' should be taken into account not as a mere description of the ontic phenomena of Dasein, but as one of the ontological conditions (existential) that constitutes the being of Dasein. A central premise for arriving at this conclusion is that Dasein has no 'essence'. Its ontological structure is characterised by 'Nothingness'. This analysis of Dasein as a being, which is a possibility, lacking its own essence, incomplete and finite opens a new horizon for out understanding of the unique ontological structure of human existence. This understanding presupposes creativity in the being of Dasein as something fundamental. Whenever we deal with the ontological constitution of Dasein we realise that its being cannot be without creativity. In order for Dasein to be and live authentically, it should be creative, comport itself and disclose the truth of its own being. Accordingly, the question concerning creativity is an imperative built into the question of what kind of being Dasein is. What is worthy of questioning is the being of this being, and interpreting its existence not as a thinking-substance but a being with possibility to create itself. This is also a genuine philosophical inquiry into the ontological constitution of Dasein Whose task in openness of being is to become oneself, and see itself as the master of its own destination in history.

NOTES

1. Rene Descartes, "*Meditations on First Philosophy*", Second Meditation, in *The Philosophical Writings of Descartes*, translated by John Cottingham, R. Stoothoff and D. Murdoch, vol. 2, Cambridge: Cambridge University Press, 1999. p. 18
2. Martin Heidegger, *Being and Time,* translated by John Macquarrie & Edward Robinson. London: Blackwell. 1997. p. 46
3. *Ibid.*, p. 71
4. *Ibid.*, p. 46
5. *Ibid.*, p. 68
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12. Heidegger, Martin, *Being and Time,* p. 182
13. *Ibid.*, p. 183
14. *Ibid.*, p. 185
15. *Ibid.*, p. 296
16. *Ibid.*, p. 289
17. *Ibid.*, p. 243
18. *Ibid.*, p. 165
19. *Ibid.*,
20. Martin Heidegger, *Phenomenological Interpretations of Aristotle,* translated by Richard Rojcewicz, Bloomington : Indiana University Press, 2001, p. 21
21. Martin Heidegger, "...Poetically, Man Dwells..." (1951), *in Philosophical and Political Writing,* Manfred Stassen (ed.) New York, London : Continuum, 203, p. 277
22. Martin Heidegger, *Contributions to Philosophy (From Enowing),* Translated by Parvis Emad and Kenneth Maly, Bloomington : Indiana University Press, 1999, p. 86
23. Martin Heidegger, "The Question Concerning Technology", in *Basic Writings,* David Farrel Krell (ed), London : Routledge, 1996.

STRAWSON AND INDUCTION

NILIMA MISRA

The objective of this article is to examine critically the views of Prof. P. F. Strawson on the Problem of Induction. Towards this problem, he has adopted the standpoint of Analytic Philosophy which is a unique way of looking at any knotty point of philosophy. But before we evaluate Prof. Strawson's views in this matter, we must have a brief sketch of the problem itself.

There is no denying that in all sciences except Logic and Mathematics, we must rely on inductive reasoning in order to arrive at some general conclusions. Not only in sciences, at the level of common experience also this process of reasoning takes place. We perform an induction when we generalize from the observed facts or when we argue from what has actually been seen in one/two particular cases to another particular unseen case. For example, we conclude that the sun will rise in the east every day because we have seen it risen in that direction 'n' no of times; or we may be rest assured that this fruit which looks like the one eaten and found good in taste every day of the last week, will again taste the same today. Actually most of our beliefs concerning matters of fact are arrived at in this fashion. J. S. Mill defines this inductive process in these words -

"It consists in inferring from some individual instances in which a phenomenon in observed to occur, that it occurs in all instances of a certain class; namely, in all which resemble the former, in what are regarded as the material circumstances".[1]

As we all are aware, David Hume 'the classical skeptic' had raised the question of justification or reasonability of such a process. Unless we presuppose the Uniformity of Nature or Law of Universal Causation, we have no reason to believe that if quality A and B have been seen together with quality C in some instances then they will also be together with C in

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Particular/all future unseen instance/instances, he claims. And then he clarifies that this general proposition about the uniformity of nature (or the law of universal causation) is not a necessary proposition and actually is believed as a conclusion of an inductive process itself. Now it can be seen that it actually is begging the question. As a result of this, it is often said that the induction cannot be rationally justified at all, it is not even a process of reasoning but, as Hume believes is a habit of expecting something to happen if it has happened previously in the similar circumstances. It is not rationally justified and has only psychological (not logical) force when we believe that the future (single event or generally) will be like the past.

The question of rational justification of inductive process is called 'Problem of Induction'. Everyone who has thought about this problem has felt a kind of anguish and as a result of that has tried some solutions. Some thinkers, accepting that we actually do not have any logical right to conclude about the future event on the basis of the past, justify it on pragmatic grounds[2]. Their argument is that it has worked in the past, has been found useful in predicting about future events and sciences have made commendable progress by presupposing its 'validity'. On this ground of proven utility of induction, they say, it can be justified. In fact inductive process is found inevitable because this is the only way we can predict a future event or future in general on the basis of past experience. But we can clearly see that this argument which concludes about justification of inductive process because it has worked in the past, presupposes the validity of induction and is circular and fallacious, hence not acceptable.

Then there are rationalists[3] who try to prove the universal law of causation / uniformity of nature apriori (unlike empiricist such as Mill who proved it a posteriori) and this makes the inductive process valid in the sense of deduction. No wonder this attempt reduces the inductive process into a kind of deductive reasoning. Several other rationalist attempts have been made in recent times to justify induction by showing when and why its conclusion attain high probability in the sense of the mathematical theory of chances or law of combination.

It has clearly been established that all these attempts fail to fulfill their intended purpose. We may not go into the details of the criticism to these offered solutions but neither the uniformity of nature/the law of universal causation could have been proven apriori nor the theory of chances could disentangle the tangle.

Since none of the above and many more other solutions tried have been found satisfactory, this problem has often been called the 'Scandal of Philosophy'. The apparent insolubility of this problem perplexes the mind because most of our day-today and scientific beliefs or conclusions depend on this process and if acceptance of this inductive process has been found ungrounded, unreasonable or unjustified, then we have no hope of escape. At this dismal juncture, Prof. P. E. Strawson[4] started wondering if the problem raised was genuine. Is not there any misconception about it, he questions?

The problem at hand here is - Is inductive process justified ? Before trying to find out justification for the process, Prof. Strawson thought we must stand clear as to what kind of justification we seek in this connection i.e., what do we mean here by 'justification'.

Strawson realized that we should first analyse the word 'justification' and understand what it means in this context. And after the analysis he came to conclude that the demand for a justification of inductive process is a mistaken one. In this opinion "what lies behind such a demand is often the absurd wish that induction should be shown to be some kind of deduction"[5] because what 'justification' means to most of the people is deductive or complete and conclusive grounds. Since induction the grounds provided for the acceptance of the conclusion are not like that, the question about the reasonability of inductive process is raised. He says -

"................. fantastic as the wish for induction to be deduction may seem, it is only in the terms of it that we can understand some of the attempts that have been made to justified induction."[6]

Rationalists have this sense of justification in the back of their mind when they tried to prove the laws of nature apriori or when they use the 'theory of chances' to calculate the exact probability of the conclusion of an inductive argument. Even empiricists like Hume also accepted 'justification' in this sense only and that is why the probability of the inductive conclusion disturbed them and led them to skepticism.

But as we can see this kind of 'idealizing' the deductive grounds is not proper and we must be very clear that the words like justification, reasonability, good grounds have been used in two different sences. deductive and inductive -and in the former sense these grounds prove the conclusion-belief completely whereas in the latter sense the conclusion-belief is proved with a relative probability. With this kind of clarity, Prof. Strawson thinks, the doubt about the reasonability of induction disappears.

There is another dimension to this problem too. Even if we stand clear about the meaning of justification involved in inductive process, the question of reasonability of it can still be raised. Actually we can raise this question of reasonability/justification with relation to a particular belief as well as with relation to the entire process of induction as such. Though in the first context the question raised is absolutely correct, but in the second context, according to Prof. Strawson, it is not proper to demand any kind of justification. We can explain this further. When I say I have good reason for believing A, there are good grounds for accepting A, in other words, I am justified in believing A, and when someone asks me what I mean by good grounds, good reason and being justified, my answer is likely to be that the meaning of these phrases is that I have seen 'A' 'happening' and never seen it 'not happening' in similar circumstances. But when the doubts are raised on the justification of the inductive process or induction in general, it is a mistake. Prof. Strawson claims "it is generally proper to inquire of a particular belief, whether its adoption is justified; and in asking this we are asking whether there is good, bad or any evidence for it. In applying or withholding the epithets 'justified', 'well founded', etc. in the case of specific beliefs, we are appealing to, and applying, inductive standards."[7]

But Strwason wonders, to what standards does one appeal when one asks whether the application of inductive standard is justified or well grounded[8]. If an answer cannot be given to this question then it proves nonsensical. Compare it with this question he says : Is the law legal ? It is totally sensible if we question about a particular action or/and administrative regulation whether or not it is legal. This question will be answered by an appeal to a legal system. But it makes no sense to inquire in general whether a law is legal because in that case we fail to understand to what legal standards we are appealing. It is actually begging the question hence nonsensical. Therefore questioning a particular kind of reasoning as such is absurd, Strawson holds.[9]

In his opinion, all we can do is to question a particular belief and analyse what kind of justification we have to hold it. If we have certain experiences in its favour and none against it, then we are justified in a particular sense-inductive sense-to hold that belief. So to put the whole purport of Prof. Strawson's discussion in simple words, we can say that reasonability, justification, good grounds, all these phrases have two (at least) meanings - (1) deductive (2) inductive- and a belief which has any of the two kind of evidences is perfectly justified. These two kinds of reasoning are taken as standards and by appealing to any of these, our particular beliefs/conclusions are judged. But if we raise a question about the 'justification' of these standards, we are indulging in a worthless activity and falling into a trap of circularity. As we can not judge a law as being legal, a constitution as being constitutional, so is the case with these processes of reasoning. Therefore, in the views of Strawson, the Problem of Induction is not a genuine but only a pseudo problem and this becomes clear when we analyse certain key words, phrases and concepts.

After having explained the standpoint of Strawson all I have to say in this connection is that this is not the dissolution of the Problem of Induction. It is correct that we judge a particular argument by appealing to a certain logical reasoning process taken as standard and that standard reasoning process cannot be judged by appealing to self. But my submission is that the standard reasoning process can be judged by appealing to some higher wider standards. The solution given by Strawson only clarifies the probable nature of inductive arguments, but it is not a solution of what is cited as Problem of Induction. The Problem of Induction is : whether past experiences can serve as logical grounds for the future. Or in other words, in process of induction at all logical or reasonable ? In my opinion, the question of 'logicality', 'reasonability' is not raised here in terms of inductive or deductive reasoning. These phrases here do not mean the same as when they are used in connection with a particular argument. In this context the meaning of these phrases is far more deeper, wider and general. The meaning of 'reason' or 'justification' here is not either inductive nor deductive grounds but these words have a far more general third sense and it is in this third sense that we wish to know whether induction is an acceptable process of inference. It is true that a law cannot be judged as legal or constitution as constitutional but we can meaningfully raise a question whether a law or constitution is humanistic. Similarly both the processes of reasoning or 'logical standards' can be examined by appealing to higher standards. We can challenge the reasonability of deductive process but the problem would be that in doing so we will have to accept a few fundamental basic principles of deduction, because in the absence of them we cannot talk meaningfully about anything whatsoever. For example, if we do not accept law of contradiction then our utterance of even a single proposition - like, it is raining - will be rendered meaningless because then in the absence of the above principle even a contradictory proposition - like, it is not raining - will also be acceptable simultaneously. And because of this the whole discourse will be futile. Therefore if we take our discourse and language as meaningful, we will be forced to accept deductive principles e.g. law of identity, law of excluded middle and law of contradiction. Actually deductive principles are presuppositions of all meaningful discourses hence they are irrepressible and irrefutable. Therefore the doubts about reasonability of deduction are futile. But the same is not the case with induction. We can reject the inductive principle without making ourselves nonsensical. Because by not accepting these principles our discourse can still remain meaningful. Therefore we cannot accept induction unquestionably in the sense in which we accept deductive principles. And the question about its justification can be raised meaningfully.

Now if the problem of justification of induction is genuine, then our search for its solution has not ended with Strawson. It seems that it is almost impossible to get out of this theoretically entanglement/impasse about the nature of induction. But at least one thing that we can say, is that induction does have some kind of reasonability somewhere in its nature though we might not be able to prove it. Past experiences certainly are grounds for accepting similar future and this 'logicality', it is clear, is based on a kind of rationality in Nature in general though we are, for now, unable to 'catch' that rationality in it. If Nature and consequently induction is irrational then all our sciences, behaviour, day-today life, everything will become incoherent and uncertain. We know, by using inductive process of reasoning science and technology have amassed great success and our behaviour too which is mostly governed by inductive reasoning, is generally successful. In the light of this, we can safely conclude that there is some rationality in anticipating and predicting future on the basis of the past. But at the same time we must accept this limitation of ourselves in not having been able to prove this rationality. Unless, of course, we accept Kant's contention that our understanding makes Nature as it appears to us. Hence there is rationality in Nature. This consequently can lead to the rationality in induction too. Otherwise, all we can do is to justify the use of inductive process on the grounds of psychological satisfaction in practical life, but as we have seen, this also is no solution to this problem at all.

NOTES

1. The Grounds of Induction : Mill, J.S.; an article compiled in '*A Modern Introduction to Philosophy*' and anthology ed. By Edwards, Paul and Pap, Arthur; The Free Press, Glencoe, Illinois, 1957; p.116.
2. *Encyclopedia of Philosophy,* Vol.4 : Editor-in-Chief-Edwards, Paul; Macmillan and Publishing Co. Inc. and The free Press, New York; p. 176-7.
3. Ewing, A.C.; *The Fundamental Questions of Philosophy*: Allied Publishers Pvt. Ltd. 1st Indian Edition, 1967; p. 168. Encyclopedia of Philosophy, Vol. 4 : Editot-in-Chief-Edwads, Paul; Macmillan and Publishing Co. Inc. and The free Press, New York; p. 174.
4. Strawson, P. F.; *Introduction to Logical Theory* : B.I. Publications, New Delhi, 1976; p. 248-63.
5. *Ibid;* p. 256
6. *Ibid;* p. 250
7. *Ibid;* p. 257
8. We are certainly not appealing to deductive standard because this will make deductive reasoning superior to iductive reasoning which it is not. Both the reasoing processes have been accorded the same status.
9. *Ibid;* p. 257-8

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THE METAPHYSICAL BASIS OF ENVIRONMENTAL ETHICS : A SPINOZISTIC APPROACH

KANTI LAL DAS

Environmental ethics is surely a new addition to the so-called traditional or humanistic ethics. Traditional ethics is predominantly humanistic in nature because here only human beings are considered to be the legitimate moral agents. Traditional ethics denies or ignores the value of nature. It pleas for moral dualism or ethical subjectivism, which is currently known as anthropocentrism. The sole objective or environmental ethics is contrary to traditional ethics. It rules out moral dualism or ethical subjectivism and thereby pleas for non-anthropocentrism in which the moral dignity of all biotic community can be restored through a proper relationship between man and nature. It tries to annihilate the view that only human beings are the legitimate moral agents and apart from human, no other sentient beings have that right. It is important to note here that the rapid progress of science and technology, which is materialist in nature, is the root cause of degenerating or deteriorating the proper balance of eco-system. Agricultural development, urbanization, industrialization and deforestation etc., are cases in point. Realistically or materialistically, nobody can ignore the utility of science and technology. However, at the same time human beings must be serious enough to find out the answer to the question: how far and at what expense do we run with the technological development which in turn gives rise to serious environmental crises ? We do, of course, take part in the technological development, but such type of development should be assessed not in terms of the question: how can we develop ? But in terms of the question : how ought we to develop ? Since modern technological development is much more materialistic in nature, it understands the process of development in terms of the questions: how can we develop ? It is characteristically man-centered and it runs with the conviction that man is the measure of all things. Such type of attitudes tends to extinct the other

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non-human beings. Environmental ethics just tries to resist the materialistic trend of environmental dualism and thereby conceives all biotic community as the members of a single, unified whole. Environmental ethics is predominantly concerned with the intimate relationship between man and nature. It tries to restore the moral dignity of all sentient beings by admitting the intrinsic or non-instrumental value of nature.

The objective of my paper is to explore and examine the metaphysical basis of environmental ethics of Spinoza. It is important to note here that at the time of Spinoza the relevance of environmental ethics was not much prominent as it is in the present context. However, Spinoza was very much aware of the relationship between man and nature, which got significant relevance in the context of present situation. We have already pointed out that modern environmental ethics stands with the conformity between anthropocentrism as well as non-anthropocentrism. Anthropocentrism affirms instrumental or materialistic value whereas non-anthropocentrism affirms non instrumental values. In this paper I propose to explain and examine Spinoza's metaphysical aspects of environmental ethics in terms of anthropocentrism as well as non-anthropocentrism.

I

We think that Spinozistic metaphysical basis for environmental ethics lies submerged in his cryptic remake "Intellectual love of God". Spinoza equates God with Nature, i.e., God = Nature. In this sense to love or respect God is equal to love or respect Nature. In other words, any reverence towards God is equal to reverence for Nature. Accordingly, man has no privileged position on nature. It is the cultivation of reason, Spinoza conceives, which actually tends one to realize his own position and status as part of a whole (nature). Thus cultivation of Reason, what may be called the rationality of man, is the key by means of which one can realize that he is very much an integral part of nature. As soon as one comes to realize that he becomes an integral part of nature, he thereby equally realizes that he has to contribute for his fellow beings of species. This is where the relevance of environmental ethics as expounded by Spinoza lies. His understanding of environmental ethics is called metaphysical (spiritual) because instead of factual understanding of nature, he equates Nature with God, which is very much a process of realization through the cultivation of Reason.

Interestingly, the view of Spinoza that 'man has no privileged position with respect to nature' creates an apparent contradiction with his follow-up remark that appears to go in favour of anthropocentric morality. On one hand, Spinoza pleas for a non-anthropocentric approach by apprehending man as an integral part of nature, and on the other hand, he pleas for human individuality or existence which is very much anthropocentric in nature. This is much more reflected by his claiming that morality is entirely circumscribed by human species. So before delving into his main thesis, it appears clear that Spinoza contradicts himself at the outset. There is no question of doubt that by announcing man as an integral part of nature, Spinoza thereby pleas for a non-anthropocentric approach of environmental ethics and when he proclaims that man has privileged position on nature, he thereby anticipates and anthropocentric approach of environmental ethics. Thus one can find an apparent contradiction, which gives rise to an immense philosophical interest. Spinoza further conceives that morality is grounded upon human self-preservation. Even Spinoza elsewhere seems to admit ruthless exploitation of non-human species for human ends. All these remarks of Spinoza visibly go in favour of anthropocentrism, which is very much unlikely with his earlier remark that 'man has no privileged position with nature'. We think that by admitting individual existence or the so-called human individuality on one hand and man as a integral part of nature on the other, Spinoza perhaps does not contradict himself. Spinoza was surely not a proponent of anthropocentrism, but whether he was a genuine believer of non-anthropocentrism is a matter of discussion that would surely come up in the on going presentation. Nor does it make sense to say that by pleading human individuality, Spinoza turns down his central theme of man as an integral part of nature. However the question immediately crops up in the mind is that how does a man become an integral part of nature if his self-preservation is being rooted on the ruthless exploitation of other non-human species ? Is it not an apparent contradiction to treat man as an integral part of nature on one hand and men having no privileged position in nature on the other ? Spinoza, however, is aware of this and thereby holds that both can spring from the same metaphysical presupposition as they are very much inter-connected. We shall see in the course of our discussion in what sense Spinoza enables to overcome his apparent contradictory remarks as cited above.

We think that Spinoza was very much against the moral or ethical dualism and he elsewhere rejected anthropocentrism. In this regard his understanding of environmental ethics is unique in nature. There is no question of doubt that Spinoza was very much against anthropocentrism as he sets himself firmly against a man centered perception of the universe. By advocating the view that man has no privileged place in nature, he makes himself an unequivocally 'speciesist'. It is also important to observe here that by propunding a unique moral position Spinoza had overcome some major difficulties originated from other views. However, this does not make sense to say that the apparent tension of Spinoza's thought is out of begging question. Surely, Spinozistic insight of metaphysical or spiritualistic approach of environmental ethics throws some impact on current environmental ethics. The genesis of Spinoza is that he has somehow managed to combine a strong rejection of anthropocentric perception with an equally strong affirmation of man-centered morality which somehow or other appears to be perplexing. Usually, any biasness towards man-centered morality leads to anthropocentic approach, but interestingly; Spinoza has succeeded in retaining the concept of man-centered morality by dicorcing the idea of anthropocentrism in general. Philosophere having anti-anthropocentric persuasion would like to condemn man's exploitation of nature because they realize that like humans beings, non-human beings equally contribute a lot for the betterment of manking in general. Even non-human beings passively sacrifice a lot for the betterment of humans without seeking reversal from the humans. Just like a man, an animal or a tree or a beak or a stone is equally important as far as proper environment is concerned. Here we can particularly call upon the nme of Leopold. Leopold in his article 'The Land Ethics' conceives land not as mere soil but as a source of energy. He further conceives that since the native plants and animals absorb energy from the sun and thereby kept the energy circuit open, any form of man-made changes is of a different order than evolutionary changes.[1]

II

The moral status of animals in Spinozistic Approach

We think that Spinozistic apprehension of environmental ethics differs from Leopold's apprehension of Land Ethics. Spinoza persists human's exploitation of non-human beings withing the parameter of non-anthropocentrism. Environmental philosophers more or less favour the legitimacy of animal rights, but quite interestingly, Spinoza being a believer of non-anthropocentric approach rejects animal's rights. This is relected from the passage of Spinoza. Spinoza says, "(I)t is plain that the laws against the slaughtering of animals is founded rater in vain superstition and womanish pity than on sound reason. The rational quest of what is useful to ys further teaches us the necessity of associating ourselves without fellow man, but not with beasts, or things, whose nature is different from out own; we have the same rights in respect to them as they have in respect to us. Nay, as his virtue, or power, man defines everyone's right has far greater right over beasts than beasts have over man. Still I do not deny that beasts fell, what I deny is, that we may not consult our own advantage and use them as we please, treating them in the way which best suit us, for their nature is not like ours, and their emotions are naturally different from human emotions.."[2]

The above passage of Spinoza gives rise to a plenty of clues in understanding animals' rights in the environmental ethics. Spinoza inclines to say that animals can never be equated with man, as unlike man animals are sentient beings. The emotions and feelings of sentient beings are different from humans. He further seems to conceive that although a horse and a man are alike in terms of desire, but the desire of a horse is completely different from the desire of a man. The desire of a horse is equine, whereas the desire of a man is human. Thus for Spinoza, different species belonging to different classes must vary according to the nature they possessed. Every species has his own joys, his own lusts that are unique in itself. Accordingly, an animal cannot collaborate with humans in terms of activity, self-preservation, creation etc. This, according to Spinoza, is the genesis of morality. Spinoza says, "No individual thing, which is entirely different from our own nature, can help or check our power of activity, and absolutely, nothing can do us good or harm, unless it has something in common with our nature."[3] Thus anything, which is somehow, or other different from our nature can neither be good or bad to us. That is why Spinoza conceives morality in terms of self-preservation. Spinoza says, "To act absolutely in obedience to virtue is the same thing as to act, to live, or to preserve one's being... in accordance with the dictates of reason on the basis of seeking what is useful to one's self."[4]

It seems clear that as a believer of non-anthropocentric approach, Spinoza rules out a collaboration of man with other non-human beings. Rather he seeks a rational hunt of intra-species alliance not in the sense of Aristotle who conceives man as a social animal by nature, but as a natural extension towards individual self-preservation as understood by Hobbes. For Hobbes every man is constrained or impelled to seek what is useful to himself, whereas for Spinoza man's self-preservation is taken care of by collaboration with other species. This is exactly the same thing what Spinoza calls the natural outcome of the rational man's pursuit of his own individuality. Spinoza says, "As everyone seeks most that which is useful to him, so are men most useful one to another. For the more a man seeks what is useful to him an endeavours to preserve himself, the more he is endowed with virtue, or what is the same thing, the more what is endowed with power to act according to the laws of his own nature, that is to live in obedience to reason..... therefore.... men will most useful one to another when each seeks most that which is useful to him."[5] Spinoza inclines to say that one's life of reason always amounts to one's self-preservation, cultivation of reason draws men together, enhancing their own powers, own activity and own perfection. However, men for the most part, Spinoza opines, do not live in accordance with reason and hence the harmful destructive passions are inhabited by the stronger emotion and fear.

Although Spinoza differs human beings from other non-human beings, but from this it does not follow that he rules out animal's right. For him there are two kinds of rights of which one form of right applies to men in the state of nature along with everything else and secondly, there is another form of right, which can only be possessed by men as citizens. Animals do, of course, enjoy rights only in the first sense. It is also important to note here that unlike Locke, Spinoza does not admit moral connotation of natural right possessed by animals. Accordingly, animals by no means are considered as the members of moral community. For Spinoza men enjoy more rights unlike animals just because human bodies are more superior than animal bodies. Like Hobbes, Spinoza rejects natural rights as the basis of morality as they are consequent on the emergence from the state of nature. He undertakes the Darwinian slogan of the survival of the fittest and accordingly holds that nature will decide the right. Every species by his very nature enjoys rights and the rights of a species will be determined on the basis of his natural condition. Fishes, for example, are naturally conditioned for swimming, fishes therefore enjoy the water. Every individual, say Spinoza, has sovereign right to do all that he can do. Accordingly, the rights of an individual extend to the ultimate limit of his power as it has been conditioned by nature. Hence every being should endevour to preserve itself without regarding anything but itself. Spinoza says, "..... Sovereign law and right belong to every individual, namely to exist and act according to the natural conditionals."[6]

The introduction of the term 'natural conditions' is important in realizing the state of nature. Having being introduced the term 'natural conditions' Spinoza emphasizes on the immortality of the state of nature in which there is no scope of reason. Unlike Hobbes, Spinoza does not consider the laws of reason as governing the whole of nature. Nor does he think that the man disentangled from the rest of nature simply on the fact that man possesses an innate grasp of the laws of reason. For Spinoza man in the state of nature are "no more bound to live by the dictates of an enlightened mind than a cat is bound to live by the laws of nature of a lion."[7] Nature, Spinoza opines, is not constrained or tied up by the laws of human reason, rather nature only aims at true benefit and preservation of man. The limits of nature are infinitely wider and have reference to the external order of nature. On the contrary, a man is just like a speck. So the right and ordiance of nature under which all men are born and mostly live are not to forbid strife, not hatred, nor anger, nor deceit, nor any of the means suggested by desire, but it only prohibits such things as no one desires and no one can attain.

We are now in a better position to foresee in what sense Spinoza manages to combine a strong rejection of anthropocentric apprehension with an equally strong admission of a man-centered morality. Although elsewhere Spinoza was very much vocal in favour of anthropocentric apprehension of morality, but he never admitted the dictation of human reason. He conceives human reason as simply a means for achineving what is good for us. It has no bearing on what is good for the rest of reality. Reason contributes just like a mere speck of reality, which consists in human life. Even at times Spinoza inclines to say that human minds are infludenced by prejudices and superstitions and hence come to believe in some rules of the univers endowed with human freedom that have arranged everything for human use. It is also claimed that the rulers direct and dictate the whole course of nature for the satisfaction of man's 'blind cupidity and insatisfiable arvarice'[8]. In this process prejucices develop into superstition and gradually take deep root in the human mind. Consequently, everyone strives most zealously to understand and explain the final causes of things and thereby strives to show that nature does nothing in vain. In this way human beings acquire the propensity of conquering nature.

We think that Spinozistic apprehension of the metaphysical basis for environmental ethics is not easy to grasp. On one hand, Spinoza anticipates the soverenty of individual particulary in in the case of this choice, and on the other hand, he has committed the view that individual has no power of dictation over nature. We have also observed that Spinoza admits animal's rights only in the sense of natural right. However, like Hobbes and unlike Locke, he rules out moral significance or connotation of natural right. For Spinoza moral right confines only withing the framework of a moal community which is very much species relative and is based on the shared nature. Accordingly, what is good for us may not relevantly be good for others, i.e., human goods ought not to be truncated for the sake of goods of other animal. This actually recalls the apprehension of Passmore who one says that man is not a 'despot of nature' nor he is a 'steward of nature'[9] We think that neither Spinozistic approach nor Passmore's apprehension of man's contribution towards nature is conducive for the holistic kind of environmental ethics as their apprehenesion regarding environment fails to give rise to a viable basis for a genuine enviromental ethics is which every biotic communit is considered to be an inevitable part of the whole nature (God).

There is no question of doubt that today's environmental ethics pleas for a solid foundation between man and nature. In other words, modern environmental ethics pleas for a holistic cordiality between man and nature, which is not fully reflected in Spinozistic apprehension of environmental ethics. Environmental ethics rules out human's interest in the biotic community, rather it pleas for an equal respect and care of all biotic community. Richard Routley one says; "Human interests and preferences are far too parochial to provide a satisfactory basis for deciding on what is environmentally desirable."[10] An action that appears to be good for humans may not equally be good for non-humnas. Such activities or actions should be curtailed, as they are bad for the other parts of nature. However, we have seen that Spinoza prefers human actions, which are good for them. Does it make sense to say that Spinoza ultimately stands with anthropocentric appreshension of environmental ethics by admitting human actions, which are good for them ? Or should we say that by rejecting anthropocentrism, does Spinoza turn into non-anthropocentrism, which tends to prescribe the curtailment of human rights or goods for the sake of other parts of nature ? We think that in the context of present environmental ethics, Spinoza perhaps stands in between anthropocentric as well as non-anthropocentric approaches. In other words, it can be said that in true sense, Spinoza is neither a proponent of anthropocentrism, nor is a proponent of non-anthropocentrism. Rather, we can say that by rejecting the view of anthropocentrism, Spinoza to some extends admits determinism- a view, which runs whith the slogan: "Survival of the fittest". However, we can say that as far as environmental ethics in concerned determinism is closer to non-anthropocentrism rather thân anthropocentrism.

One important point to be noticed here is that the so-called environmental crises of 21 century is far more visible and forceful than 17th century. We think that Spinoza in a contemporary setting would surely notice man's well being as more bound up with that of other species than it was possible of foresee in the 17th century. We think that unlike the 17th century, the current materialistically dominant situation requires immense scientific and technological development, which directly or indirectly leads to a severe environmental degradation that cannot be resisted without making an intimate relationship between man and nature. Environmental degradation in any form can never be resisted without humans' realization that every human being is an inevitable part of nature. Every human being should realize through the cultivation of reason that nature is just like an essential part of his own body without which he cannot be survived. That every individual sees his each part of his body with outmost care and love; likewise he has to take care of nature with his loving eyes. The Spinoza pf 17th century realized that the well being of animals was independent of that of man. Ulike Spinoza, current environmental philosophers conceive equal right of all beings as every species contributes something for the biotic community, which may have intrinsic value.

Owing to establish a cordial relationship between man and nature, modern environmental ethics takes account of the humanization of the world. However, Spinoza does not agree with this conviction as he conceives such type of word as an illusion. For him the concept of the humanization of the world is the outcome of anthropocentrism something that has been witnessed even in Cartesian mind-body dualism. Ethical system, say Spinoza, is essential in self-presrvation, in the survival of human beings. Pursuit of human activities is an extension and enrichment of his basic pursuit of self-preservation. It is basically the cultivation of reason, the pursuit of truth. The ultimate expression of human endeavour is the intellectual love of God, a detached, selfless perception of things as parts of wholes and as modes of substance. For Spinoza human good does not require the goods of other species. Spinoza equates God with Nature and thereby he conceives that there can be only one substance, which exists in and itself. The substance, Spinoza says, is the whole of the universe and hence can be equated with God. God being eternal, invisible and perfect has no teleological goals for itself. God or Nature manifests itself through its modifications or modes having dependent existence. The entities such as humans, trees, rocks, etc., are temporary modes or modifications of one substance or whole, namely, God or Nature.

Spinoza, however, inclines to say that we can use animals in any way useful to us. However, such attitude towards animals goes against today's environmental ethics as it actually disproportionate the man- nature relationship of the biotic community. Such attitude of Spinoza towards animals alsop goes, it appears, against his own dictum: Intellectual love of Good (Nature). Spinoza, however, thinks the other wau round. For him using animals in ways useful for us means using them in ways that enhance our activity, our perfection. He further inclines to say that the view that we use animals in such a way useful to us is less exploitative that it might at first appears. Howeve, it has been objected by saying that intellectual contemplation is not a baisc human interest of a kind we could expect to impose at all those individuals and institutions whose current laying waste the environment is a case for concern. The objective of modern environmental ethics clearly deviates from Spinozistic approach as modern environmental ethics inclines to hold that human goods in some circumstances should be curtailed for the sake of what is good for the rest of nature. That the goods of other non-human beings should be taken into account in our moral judgments. This requirement actually recalls the Gandhian concept of Sarvodaya, which sets for the welfare of all beings, humans as well as non-humans. However, if we cosider Spinozistic moral system, then it makes impossible to say such things. Spinoza, however, rejects moral connotation of non-human beings, as they do not possess reason. More importantly, it also makes impssoible to conceive man as 'stewards of nature, if man-nature relationship can be divided on the basis of reason. Modern environmental ethics, however, include both human as well as non-human as a single whole of the biotic community. This is hevily witnessed in Leopold's writings. Leopold says, "The land ethics simply enalrge the boundaries of the community to include soils, waters, plants, and animals, or collectively, the land."[11] For Leopold a thing is right when it tends to perceive the integrity, Stability, and beauty of the biotic community; and is wrong when it tends otherwise, Now, Spinozistic view that ' man is the part of nature' may be justified on the assumption that non-humans are the members of moral community as like as humans. Spinoza, however, does not considers non-humams as the members of moral community. We think that both Sponoza and Leopold share the view that the total system of nature is ethically fundamental. However, there underlies a point of dispute whether the so-called non-humans by any means can be or ought to be considered as moral beings. Non-human beings do, of course, possess intrinsic value with which Spinoza does not agree. For Spinoza since reason is the only criterion of moral connotation, non-human beings by virtue of lacking reason do not count as moral community. However, from this it does not follow that non-human beings lack intrinsic value.

III

It would, perhaps, be true to say that the sheer complexity of Spinozistic thinking makes it impossible to represent him as a patron in any philosophical movement, nevertheless today's environmental ethics would certainly be benefited from his philosophical insights. I think that Spinoza has contributed a lot to the modern environmental ethics, even though he did not admit the moral connotation of non-human beings. I have examined and explained at length the apparent contradictory standpoint of Spinoza at the very outset of my paper. I fell that on one hand, Spinoza understads morality in terms of human intersests and on the other hand, he goes on to say that man has no privileged position in nature. Thus it appears exotic or eccentric to hold that a rejection of anthropocentricity in morals is often juxtaposed with a thoroughly anthropocentric way of conceiving the non-human. There is no question of doubt that Spinoza elsewhere vehemently rejects anthropocentrism and quite interestingly, he equally opposes or may tend to opposes non-anthropocentric outlook by forfeiting the intrinsic value of non-human. I think that Spinozistic rejection of anthropocentrism is on a par with the outlook of today environmental ethics. However, by forfeiting the intrinsic value of nature Spinoiza not only deviates fro the outlook fo modern environmental ethics, he equally contradicts, at least people would like to say, with himself. Consequently, it creates an unbounded interest as well as confusions among many philosophers regarding the real standpoint of Spinoza about environmental ethics. Does Spinoza prefer anthropocentric approach instead of non-anthropocentric approach or vice-versa? Or does he anticipate neither of these in true sense, but to turn into other approaches? I think that this is an important question, which is reuired to specify.

It has been observed by many that Spinoza somehow or other manages to combine a strong rejection of anthropocentric perception with an equally strong affirmation of a man centered morality. I think such type of reply actually fails to dig up the real position of Spinoza. At the same time it also reflects the loopholes of Spinoza in understanding environmental ethics in general. Since anthropocentrism and non-anthropocentrism are very much contrary in nature, one cannot anthicipates the theme of both. I have cleraly stated that Spinoza was very much against anthropocentric perception, but this does not make sense to say that he has anticipated non-anthropocentrism. It is also important to note here that any plea to man-centered morality actually leads towards environmental dualism- a view that goes against non-anthropocentrism.

Let me first clarify in what sense Spinoza denies anthropocentrism. If we look back in the history of philosophy, it appears clear to us that are many dominant trends which go in favour of anthropocentrism and notably, Spinozistic apprehension of environmental ethics definitely conflicts with many of them. Here, I particularly call upon the name of Descartes who was the leading proponent of anthropocentric approach. When Descartes inclines to say that 'scientific technology would make us lords and masters of nature',[12] he thereby proposes a strong standpoint of anthropocentric approach. Barring this, Descartes famous dictum of mind-body dualism is another classis example of anthropocentrism. Even in Judeo-Christian tradition, human beings are considered more than plain members of biotic community. Man remained outside nature, exploiting nature for a livelihood, but never sharing its mysterious life. This again is a clear reflection of anthropocentrism. The same voice is also reflected through Passmore's observation. When Passmore goes on the say that man in any sense rules over nature, he thereby presumes that nature is not itself divine. This view clearly goes against Spinozistic 'intellectual love of God (Nature).' Spinoza, I have already already mentioned, equates Nature with God and this view again conflicts with the view of Hebrew and the Old Testament where God is supposed to be transcendental and hence cannot be equated with nature. We have also witnessed an extreme anthropocentricity in Hegel's writings. Hegel elsewhere apprehends man as God like. This anthropocentric trend reaches its peak with the hand of Nietzsche who inclines to say that man has become the measure of all things. For him nothing is transcendent, nothing is eternl, nothing is beyond man's purview. The world therefore is as storehouse of raw material for the enhancement of man's power. Passmore says, ".... for Hegel... Nature is itself is 'negativity'. This does not mean, of course, that is does not exist. But it exist simply in order to overcome, to be humanized. Man offers it liberty, frees it from its fetters, only by making it human. Nature is made less 'strange' by being converted into a tool, a language, a secret ally, an aspirant after humanity..."[13]

I think that all these views mentioned above go against Spinozistic approcah. Spinoza, however, vehmently criticizes the Cartesian standpoint of anthropocentrism as he conceives that the Cartesian outlook of anthropocentrism is intellectually dishonest as it ultimately leads to Hume who holds that men ought to act humanly towards animals; solipsism and absolute subjectivism. For Spinoza, Descartes understanding of man as the ruler and possessor of Nature is impious, sinful as well as bararic. For Spinoza, the Universe and TGod are ultimately a unity, an indivisible whole, but in no sense individual at any micro-levels. Thus it reveals that unlike Hume's subjective pluralism, Spinoza proposes a 'hideous hypothesis of metaphysical monism'. I thick that this clearly reflects, at least from the historical perspective, that Spinoza was more that a believer of non-anthropocentricsm than a believer of anthropocentrism. He firmly denies the view that nature exists in order to be humanized.

The most relevant problem that will come up immediately is : how does Spinoza persist or quest his anti- anthropocentric approach within the parmeter of man-centered morality ? I think this question actually origins from a mistake. In anticipating man-centered morality, I think, Spinoza does not ignore the natural right of animals or non-humans. What he intends to say is that unlike humans, non-human beings have no moral connotation. However, from this it does not follow that animals do not have natural rights. Animals do, of course, have the natural right to survie. I think that Spinozistic environmental ethics can be tested and perhaps to some extend may be criticized when he inclines to say that animals have no intrinsic value. Certainly, today's holistic form of environmental ethics differs from this standpoint. Modern environmental ethics admits the intrinsic value of nature. It has been said that every species, human or non-human, is just like a member or citizen of the whole biotic community, each species contributes a lot for other and each species has the right to exist or survive. The insight of Spinozistic environmental ethics is that within the parameter of non-anthropocentricity, Spinoza aleays seeks for species dualism. He elsewhere inclines to say that the good or bad of one species in on longer related to the good or bad of other species as every species is genetically different or distince from the other class of species. Secondly, by ignoring moral connotation of non-human species, Sponoza somehow or other deviates from the holistic standpoint of modern environmental ethics. Spinoza, it appears, surely involves into species dualism by making species cateory division within the parameter of environmental ethics. In this regard, I do not consider him a firm believer of non-anthropocentrism. This does nor pose him even to anthropocentrism. He is no longer, I have already stated, an anthropocentric philosopher as he has severely criticized the views of those philosophers who have advocated anthropocentrism.

I believe that the so-called environmental ethics as proposed by Spinoza is very much close to determinism. This is usual as being a philosopher Spinoza in every part his philosophical carries maintains a deterministic approach in his philosophizing. His deterministic approach is reflected in the following manner :

Ontology		Epistemology
Substance		Amor deir intellectulas (Intellectual love of God)
(Attributes) ^		Intutio
Thought	Extension	
Infinite Modes	Infinite Modes	Ratio
Finite Modes	Finite Modes	Magnitio (Freedom of the will)

It appears clear from the above picture that there are different stages in either side of his ontological thinking as well as his epistmological thinking and there underlies a determinate link in all these steps. In ontological thinking and there underlies a determinate like in all these steps. In ontological side the base of world is substance, which, corresponds to Nature or God. According to this theory every species has the right to survive. The domination or subjugation of one species by another species is setermined on the basis of the natural principle: survival of the fittest.

According to this theory, everything is determined on the basis of the natural order in which there is no room or scope of human intervention. Apart from determinism, there we find another approach what may be called possibilistic approach. According to this approach nature gives rise to various possible choices to the whole biotic community and it up to the biotic community to choose the desire one according to their own will. I think determinism is far better than the so-called materialistic appriach prevailing in the on going science and technological revolution. The materialistic orientation of science and technological development conceives nature just like a mere matter. Human can use and utilize the nature according to their own choice. That makes sense to say, in other words, that human can conquer nature. Such type of apprehension is detrimental to the whole biotic community as on one hand it tends to extinct or annihilates the other non-human species and consequently, on the other hand it by turn annihilates the whole biotic community. I strongly believe that Spinoza of the 17th century at least denied or ignored the materialistic standpoint of anthropocentrism, which always seeks instrumental value instead of intrinsic value. He, however, slightly favours non- anthropocentrism by considering man as a part of nature. However, I think that he is not a firm believer of non- anthropocentrism as he elsewhere seeks humans' interests according to their desires or will. He is very much a deterministic, which is far better than anthropocentrism as far as modern environmental ethics is concerned. Since Nature being the source of birth gives rise to various possible options, perhaps adequately, to the whole biotic community, every biotic community has the right to select the desire option for his own sake. As human being by virtue of possessing humanity and rationality are undoubtedly superior than other non-human beings, human beings ought to cultivate their rationality so that they can bear the greater responsibility of the whole biotic community not for the sake of other non-humans, but for the sake of themselves. Spinoza, however, elsewhere says that a man can know how to share; he can equally distribute something with this fellow beings unlike other non-humans. A dog or a cat does not know how to share a piece of meat by nature. This does not, however, makes sense to say that a man has the liberty to conquer nature. Any attempt to conquer nature is equally detrimental to both humans as well as non-humans. Another positive aspect of Spinozistic environmental aspect is that although Spinoza admits moral connotation only in the case of humans, he at the same time rules out humans' diction on nature. He conceives human's rationality just like a speak in the universe. Reason has no power or capacity to dictate nature, it only plays an important rule in making the man good. For Spinoza, truth becomes an absolute good having intrinsic value and is good for man. Spinoza, however, does not claim that things have values or rights independently of man. What he inclines to say is that it is good for man to perceive things as independent of himself, to perceive things as they really are,to perceive things truly. I think the realization of truth as an absolute good is also revealed in Gandhian concept. According to Gandhi the concept of Truth (Satya) which is etymolohically derived from Being (Sat) finally leads to the UItimate (God). Gandi says, "Ahimsa is my God and Truth is my God. When I look for Ahimsa, Truth says, "Find it through me." When I look fro Truth, Ahimsa says, "Find it through me"'[14] Thus for Gandhi, Truth and Ahimsa are interwined.

Spinoza also equates God with Nature. According to Spinoza the ultimate relation of self-preservation is part of the essence of God (Nature), its mind is part of God's infinite intellect. Accordingly, each thing strives to preserve in its being. Spinoza says, " Individuals things are... modes through which the attributes of God are expressed in a certain way... that is, they are things which express in a certain determinate way the power of God whereby he is and acts..."[15] Starting with the Nature of God, he then goes on to establish that there can be only one Substance, which exists in and of itself. Spinoza conceives the world as a body. He compares our fragmented, distorted perception of the world to that of a worm in the blood and thereby conceiving parts without grasping their relation to wider wholes. Spinoza compares human individuals with the particles of the blood and then goes on to say that just like the particles of the blood, human individuals are located in wider system to which they stand. A worm would live in this blood as we live in this part of the Universe and Spinoza would consider each particle of blood to be a whole but not a part. However, Spinoza fails to conceive how all the parts are congtrolled by the universal nature of blood, he equally fails to know how each of parts to harmonise with one another in a certain way.

I have already pointed out that by apprehending man as the center of the universe, Spinoz, however, does not endorse any exploitation of man over nature. However, many critics would like to say that it does ex press a false belief about man's place in nature, that it ex presses an ignorant, distorted attitude. This is clearly reflected in Hampshire's writings. For Hampshire, such behaviour reflects a false philosophy of dominance of man over nature 'as is men were situated in the world as in their own garden.'[16]. Although Spinoza conceives that only human beings are the legitimate moral agents and morality is something which is circumscribed by what is good for human species, but at the same time it is good for human beings to realize themselves as an integral part of the wider system, as parts of wholes, to perceiv e themselv es as they really are. However, I fell that Spinozistic environmental ethics is less relevant in context to the modern environmental ethics for this men-centered approach. This approach even leads him towards speciesism which holds that only the interests of members of our human species matter morally. Even one may claim that by advocating men centered morality, Spinoza in fact turns into human chauvinism which holds that value and morality can ultimately be reduced to matters of interest or concern to the class of humans. It has been criticized by saying that by advocating men-centered morality, Spinoza did not endorse humanistic approach towards nature which is mostly required to maintain a stability in the whole biotic community. Instead of that, it appears that Spinoza was much vocal of the well beings which is not morally commendable in the eyes of present day environmentalist.

Interestingly, Spinoz within the parameter of anti-anthropocentrism would like to endorse the survival and well being of human beings as the proper locus of morality. This is highly perplexing as in confining the locus of morality within the well being of human being, Spinoza actually, it appears, expresses an anthropocentric perception of man's place in the univers. Thus, there underlies an implicit contradiction in Spinozistic apprehension of morality, Moreover, many critics would like to say that the so-called ethics as expounded by Spinoza is deficient in the eyes of contemporary environmental ethics in which man is designated as part of his environment. Spinoza, as we have seen, himself admits human beings as parts of wider systems. However, his own apprehension of the term rational or rationality creates an ample curiosity. On one hand, it precludes anthropocentric perception of man as the center of the universe and on the other hand, it also precludes the recognition of any bonds of sympathy between ourselves and the rest of the nature. Thus, Spinoza involves himself into a moral dichotomy if one would like to take the face value of his own remarks. The remark that man is the center of the universe apparently leads to anthropocentrism and the remark that man is very much a part of nature or man has no privileged position on nature leads him to non-anthropocentrism. However, I feel that if we try to realize the insight of these ramarks, we come to know that there is nothing contradictory in the position of Spinoza.

This is perhaps be made clear if the so-called metaphysical basis of environmental ethics as expounded by Spinoza can be apprehende through the process of identification of self with nature. Selves are claimed to be metaphysically dependent on the existence of other things, including other selves. Selves are constituted out of relations with other things and cannot exist apart from them. In these regards, human beings, the possessors of selves, are identified with the ecosystems and biosphere and in this way to be identified with the Universe as a whole. The identification of our lesser selves with the Universe (Nature) renders our life meaningful. In this regard, the Universe as a whole might be morally considerable. Thus Spinozistic metaphysical outlook of environmental ethics makes human's life meaningful through some partial identification of our selves with the Self, i.e., the Universe. Human selves stand in a holistic relation, i.e., the relation of oneness, with the cosmos itself. Self-realization is the key of understanding a relation of oneness. It springs out of ecological conscions. Naess invokes the Bhagavadgita to explain the concept of self-realisation. She says, "He whose self is harmonized by yoga seeth the self abiding in all beings and all beings in Self; every where he sees the same."[17] The enlighten or yoga, opines Naess, sees 'the same' the atman who is not alienated from anything. The process of identification of one self with other self is process of widening of the self, and strengthens the urge to further widening. In Spinozistic system of environmental ethics, such urge is called 'conatus in sui persev eare', striving to preserve in oneself or one's being. "It is not a mere urge to survive" says Naess, "but to increase the level of acting out

....one's own nature or essence, and is not different from the urge towards higher levels of freedom. Under favourable circumstances, this involves wider identification."[18] Thus self-realisation involves the identification of the small human self (personal ego) with the wider wholes, up to the level of cosmos as a whole. The identity of the human self with the cosmos is in some sense an ontological given and the recognition of this identity is constiutive of self-realization. Since Spinoza's apprehension of the metaphysical basis of environmental ethics is viewed under the aspect of substance, the relation in which it stands to me is the holistic one of geometrodynamical of interconnectedness. In the system we are ' topologically conditioned' by the Universe and vice-versa. It means that we are deterministically shaped by its geometry and hence are not different from any other physical things.

Thus when Spinoza denies the intrinsic value of nature, he thereby does not make anything wrong as the understands the Universe as a seamless substantival unity as a wider whole in our identity through self-realisation, it leads to a loving and protective attitude to the world (Nature). Following Naess we can defend Spinoza. Naess holds that the attitude of protectiveness based on identification with nature' marks the shift from an ethics of duty; grounded on the recommendation of the intrinsic value selves, to an ethics of care.'[19] Undoubtedly Spinoza along with many others have provide the West a healthy basis from realistic protrayal of the balance and interconnectedness of three artificially separable components (God/ Nature/ Man) of an ultimately seamless and inseparable whole. Like Naess and Hampshire, Sessions has conceived that Spinoza of the 17th century provided a unique fusion of an integrated man nature metaphysics with modern European science. Incidentally, Spinoza's ethics is interpreted as biosphere egalitarianism and Spinoza endorses science as valuable for contemplation for pantheistc, sacred universe and for spiritual discipline and development. Spinoza not only advocated the basic of spiritualistic form of environmental ethics, he at the same time opposed the philosophical standpoint of Descartes, Bacon and Leibnitz who were at that time laying the foundations for the 'technocratic industrical social paradigm, and the fulfillment of the Christian imperative that man must dominate and control nature.

Finally, I also think that Spinoza of the 17th century somehow or other was influenced by the traditional ethics in which man is supposed to be the only legitimate moral beings. This is perhaps this weakest point as far as environmental ethics is concerned. Barring this point Spinozistic environmental ethics deseves substantive relvance in context to modern environmental ethics. He was a firm believer of ecological interpretation and it has been witnessed on the basis of several writers who have claimed that even the 'poet philosopher Robinson Jeffers was Spinoza's twentieth-century "evangelist" and that Jeffers gave Spinoza's philosophy an explicity ecological interpretation."[20] One may, however, criticize Spinoza on the point of species-dualism, but I think that there underlies nothing wrong with this observation. Spinozisitic apprehension of species-dualism does not hamper at all the dignity of non-human species. What Spinoza would like to say is that the desire of one class of species in gentically distinct from the desire of other class of species by nature. What I would like to conclude that the environmental ethics as endorsed by Spinoza may not perhaps be holistic in nature and the so-called apparent contrandiction is not a contradiction in true sense. However, his famous dictum: 'Intellectual love of God' still remains as the genesis of modern environmental ethics as it surely paves the way of finding out an ontological solution of today's environmental crisis.

NOTES

1 Leopold, Aldo: *'The Land Ethics' included in Environmental Ethics and Forestry,* edited by Peter C List, Temple University Press, Philadelphia, 2002, pp. 63-65.

2. Note 1 to Prop. Xxxv11, pt. IV of the *Ethics;* in R. H. M. Elwes (Trans.), The Chief Work of Benedict de Spinoza, vol.11; Dover, New York, 1955, p.213.

3. *Ibid.*, p. 206.

4. *Ibid.*, p. 206.

5. *Ibid.*, p. 201.

6. *Ibid.*, pp. 200-201.

7. *Ibid.*, p. 201.

8. *Ibid.*, pp. 75-76.

9. Passmore, Men's *Responsibility for Nature*, Duckworth, London, 1974, p. 136.

10. Routley, R. "*Is There a Need for a New, an Environmental Ethics?*" Proceedings of the XVth World Congress of Philosophy, Varna, 1973, p. 201.
11. Leopold, A : "*The Land Ethics*", in *A Sand Country, Almanac*, Oxford University Press, New York, 1949, p. 219.
12. Clarence J. Glacken, : Man Against Nature: A Outmoded Concept; in R.T. Roeloffs, J. N. Crowley & D. L. Hardesty (eds.) *Environment and Society*, Prentice Hall, Englewood Cliffs. N.J. 1974. pp. 17-28.
13. Passmore, J. : *Attitude to Nature included in Environmental Ethics*, edited by Robert Elliot, Oxford University Press, 1995, p. 135.
14. Gandhi, Mahatma, : *Selections from Gandhi*, p. 162
15. Witlesen, Jon., *The Sage and the Way, Studies in Spinoza's Ethics of Freedom*, Institute of Philosophy, University of Oslo, 1978, p.56.
16. Hampshire, S. : *Two Theories of Morality*, Oxford University Press, Oxford, 1977, p.91.
17. Naess, Arne.: "*Identification as a Source of Deep Ecological Attitude*", *in Tobias*, ed. Avant Books, 1985, p. 206.
18. *Ibid.*, p. 203.
19. *Ibid.*, p. 144.
20. Cofin, Arthur, : *Robinson Jeffers: Poet of Inhumanism*, Madison, University of Wisconsia Press, 1971, p. 56.

TRADITION-INFORMED MORAL RATIONALITY

PURNIMA AGRAWAL

Here I concern myself with Alasdair MacIntyre's theory of the rationality of morals, i.e. how moral judgements are shown to be rational How are they justified ? What kind of reasons can be given in their support? His fundamental position on the question of moral rationality is this: Moral rationality is embedded in the moral tradition. There can be no morals or morality without its historical and social context. So one cannot speak of the justifiability or rationality of moral judgments without reference to and application of the criteria of moral evaluation as formed and developed in the ever unfolding history of the long tradition of moral enquiry of a specific social and moral community.

Since MacIntyre is an advocate of tradition-informed conception of moral rationality he rejects the modern analytical philosophers' persistently ahistorical treatment of both morality and moral philosophy. His account of moral rationality thus is a fresh breeze fundamentally different from the moral theories of the Enlightenment influenced contemporary philosophers like J.S.Mill, G.E.Moore, C.L.Stevenson, R.M.Hare, and John Searle.

MacIntyre rejects G.E.Moore's claim that the most fundamental ethical principles are essentially unjustifiable intuitions to which the notion of justification is not applicable. Further, by characterizing good as a non-natural, indefinable property, Moore unwittingly appears to express his own feelings and attitudes towards 'good' as though 'good' were objective, something right out there, which it is not. I agree with MacIntyre that Moore's account of good therefore is fundamentally defective.

MacIntyre refutes Stevenson's emotivism by pointing out that he fails to distinguish moral expressions from emotive expressions of personal preference; and consequently by conflating the one with the other assimilates mistakenly moral expressions to the class of (emotive) expressions of attitudes, which they couldn't be.

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Stevenson's theory has a considerable impact on R.M. Hare's moral theory. On Hare's account, moral judgement is both prescriptive and universalizable. Thus, he calls his theory 'universal presciptivism'. MacIntrye rejects universal prescriptivism on the grounds that prescriptivity is not the distinctive feature of ethical judgements, that there can be non-prescriptive moral judgements, and that even descriptive statements can equally be action-guiding and prescriptive.

MacIntyre's general argument against Moore's non-natural cognitivism, Stevenson's emotivism, and Hare's universal prescriptivism is that their accounts of moral rationality are essentially ahistorical, abstract and therefore fragmented reflection of how we, in life and society, actually go about showing the rationality of moral judgements.

He uses the same general argument to show that John Sturart Mill's principle of utility is an ideal fiction at best, and at worst, worthless for ethics. For, Mill fails to specify criteria of choosing pleasure and happiness. After all, utility need not consist in pleasure and happiness always; sometimes knowledge and autonomy count for far greater utility than pleasure or happiness could ever. Similarly, he rejects John Serale's argument that moral principles e.g, "one ought to keep one's promises" are no more than mere tautologies. Searle's theory robs ethics of substantive moral principles.

On MacIntyre's view, any abstract moral theory which is not guided by its history form which it arises suffers from all the defects of abstraction and distortion of facts. The Enlightenment project of morality is flawed precisely because of its ahistorical, abstract and individualistic character. It is for this reason that he rejects the modern theories of moral rationality, given by the present day modern Enlightenment philosophers as theoretically confused and practically fragmented.

MacIntyre regards modern moral philosophy as creating disagreements in moral judgements and moral arguments leaving no room for the possibility of agreement In order to overcome this state of disarray he offers an account of moral rationality the justifies moral judgements by reference to the actual practice of being rational in the tradition to which it belongs. He argues that moral concepts are essentially embedded in and are partially constitutive of the forms of social life in which they have been brought up. Therefore his focus on moral philosophy has two features, (a) teleology distinguishing between what is good for me and what ought to be the good; and (b) the social embeddedness of our telos. On his view, morality is essentially embodied in its narrative history. He maintains that the rationality of moral judgements can be shown only in their historical context, that is, by reference to the tradition to which they belong.

MacIntyre's conception of tradition is not rigid; rather he speaks of tradition as dynamic and nonstatic. For him, a 'tradition' is a historically extended, socially embedded argument specially about the entities of which that tradition is constituted through generations. By a rational 'tradition' he means a tradition of enquiry which includes the practice of enquiry by a certain social and moral community spread over a long period of time. During this period the methodology of enquiry and the parameters of rationality of moral assessment, judgement and justification are formed, developed and generally accredited, agreed upon, and shared. Given this conception of tradition of enquiry we cannot go outside the tradition for any criteria of rationality. Thus, rationality of moral judgement, on his view, is internal to the tradition of enquiry itself. The development of the scientific method and the scientists' actual practice of conducting their researches and applying the idea of accreditation is a good example of a tradition of enquiry[1].

But, the question is how to show that a given tradition is rational ? He points out that the question assumes that there is a schism between tradition of enquiry, rationality-making history, growth and development, and (what is called) rationality. He argues that there can be no tradition-independent standards of MacIntyre's criteria of the rationality of a tradition consist in the kind of progress the tradition of enquiry makes through the three levels of its growth, history and development. In the *first* stage certain anomalies, certain problems concerning rationality on issues in the tradition of enquiry in question are noticed. In the *second* stage, inadequacies of the tradition to deal with the anomalies are highlighted. In the *third* stage, taking into account the context of problems, pundits provide reformulations of methodology and criteria to respond to those inadequacies adequately.

Thus, rationality of any tradition is shown by reference to the growth of its enquiry, succeeding through various conflicts, problems, and disagreements within the tradition. This is to say, that the rationality of a tradition of enquiry is justified retrospectively, by its history, since a tradition may include different levels of rationality as a 'part and parcel' of the growth of enquiry embodied in it.

If follows from this conception of rationality that different traditions have their own standards of rational justification, that there are different rationalities. As each tradition of enquiry need not have the same methodology, different traditions may disagree with each other. But, to be sure, there are no ahistorical abstract standards or criteria to resolve such conflicts between different rival traditions.

However, he suggests a way out in terms of *rational superiority* of one tradition relative to another. On his view, one tradition can be said to be rationally superior to another if it comes out to be successful by the following three criteria : a) The superior tradition must be capable of reformulating the defects of the inferior tradition; (b) it should explain the reasons that render the other tradition as inconsistent. While doing the above two tasks, (c) it should keep a check on that the continuity between past and present of the tradition is maintained.

This conception of rational superiority, to my mind, is built on the model and method of showing the rationality of a tradition within the tradition itself. Thus, MacIntyre's theory of rationality, i.e., the basic structure of rationality, is the same whether one is speaking of rationality within a particular tradition or the rationality of one tradition vis-a-vis the other traditions to adjudicate between them for their rational superiority. The adherents of a tradition of enquiry can vindicate the rational superiority of their these and arguments against the rival tradition, if and in so far as they can provide within their own tradition an adequate representation of the claims which they reject. It is not necessary that such an achievement will lead to the achievement of commensurability of standards. But it may have made it possible, at least, to have a dialectical[2] interchange between the two rival standpoints, out of which there may emerge a discovery of the common standards not articulated. I find this very insightful contribution of MacIntyre's theory to the ongoing discussion on moral rationality.

MacIntyre argues that the bearer of all traditions of enquiry is the individual, the narrative self, or the agent. He maintains that each tradition of enquiry has varied participants; and it is they who examine and interpret the given texts, antimonies and anomalies of the tradition. The varied participation of the different participants makes traditions differ from each other and to have agreements or disagreements among themselves. The continuity of rationality through the traditionladen enquiry is maintained (or done otherwise) by the participant self or the individual; for, his continuing personal identity consists in the unity of the narrative quest for the good.

Therefore, to understand the rationality of an enquiry requires understanding its contingent historical story by involving and placing oneself as a character in its enacted dramatic narrative existing so far. MacIntyre suggests that we ought to be able to construct a true historical *narrative* of a moral argument. 'Narrative history' is essential and in fact basic to characterize any human action, moral or immoral. By 'history', he means "an enacted dramatic *narrative* in which the characters are also the authors"[3].

Finally, I regard that MacIntyre's thesis of the narrative self is a justification of the view that every doctrine is somebody's doctrine expressing his ideas, not in isolation but through its successive scrutiny, in the history of the tradition of enquiry throughout his live life. I am inclined to think that MacIntyre's critical attitude towards an abstract and independent moral rationality of modern moral philosophers is justifiable as no isolated morality has yet justifiably emerged. To support his thesis he shows how, despite its tremendous efforts in favor of individualism and anti-traditionism, liberalism has transformed itself into a tradition having its own principles of rational enquiry.

On MacIntyre's view, the standards of rationality developed in one tradition are applicable cross-culturally, because understanding, communication, and convergence of rival traditions is possible, although as regards their beliefs and practices the traditions may be both incompatible and incommensurable. Peter Winch[4] argues against this. He points out "that standards of rationality may differ from culture to culture, and that we have to beware of applying our standards for a foreign practice where they may be entirely inappropriate.[5]" His objection is that application of standards of rationality cross-culturally may amount to imposing "the image of our own culture on more primitive ones.[6]" It appears to me that Peter Winch's accusation of ethnocentric interpretation against MacIntyre is misplaced. When there is an interface between two or more traditions, it is not between the traditions qua traditions; but it is an interface between two or more individuals belonging to different traditions. For, it is the individuals who are the bearers of tradition. Understanding and communication take place between the individuals. It is the individuals who are motivated to come to terms with their place in the world and to endevour to do the best possible in that world. They will use the standards of rationality developed in their own traditions and exercise their effort to reach a working cultural convergence, if they are rational enough, to carry on the business of life. This itself is the cross-cultural communication and understanding that makes available the rubric of conditions of cross-cultural applicability of the standards of rationality of one tradition to another.

Before I close let me make one or two remarks about John Haldane's'[7] criticism of MacIntyre's thesis that if the standards of moral rationality are internal to their own relevant traditions of moral enquiry, but fail to be internal to the tradition of its opponent then this leads to incommensurability of traditions. He argues that from the standpoint of each particular tradition relativism does not hold but if you have to give a description of competing traditions i.e. one traditions in relation to the other then that situation of competing traditions would invite a relativistic description. MacIntyre takes this point well. He agrees with Haldane that the description in question would be relativistic. For, come what may, we cannot go outside a tradition whatever the tradition is.

The expression "relative" does not seem to have unambiguous meaning. The dictionary meaning of "relative" is having meaning and significance by being compared to something else. I believe that principles and parameters internal to the tradition are not relative in this sense. Even if placed outside the tradition they do have their own meaning and significance. When a person belonging to a certain tradition makes a judgement that judgement is not relative but he claims that it is universally applicable to all men in whatever situation they are. And his claim is perfectly intelligible even when a member of the opposing tradition considers it. It is a different thing altogether whether someone accepts them or not as a member to his/her own/rival tradition. So the criteria, principles, and parameters of a tradition are not relative with respect to their meaning, significance, and intelligibility. They cannot be said to be relativist with respect to their truth either. For, the notion of truth is applicable to statements and not to principles and criteria; principles and parameters are either followed or flouted, or applied or abandoned. Thus, I would agree with MacIntyre that in every tradition there is an anti-relativistic commitment, and not an absolutist commitment. For, 'absolute' and 'relative' stand in contrast with each other; if one is inapplicable, the other too becomes inapplicable8. If I am right in this thinking, then it follows that Haldane's criticism of MacIntyre does not hold.

Nor is the charge of relativism against MacIntyre's theory fair. Relativism implies the denial that there are certain kinds of universal truths. Ethical relativism is the theory that there are no universally valid moral principles: "all moral principles are valid relative to culture or individual choice."[9] MacIntyre's statement that criteria and standards of rationality change as traditions change, or that standards of rationality in different societies do not always coincide[10], may be said to be open to this criticism that his theory of rationality in this sense is relativistic. It sounds as if the different theories of moral rationality were isolated conceptual islands with on communication whatever with the rest of the world. It seems to me, that the charge of relativism against MacIntyre's theory is rooted in taking his statements out of their context and reading into them relativistic elements. Notice MacIntyre also says tat criteria of rationality vary not only as traditions vary, but that they also change as the tradition changes as it grows historically. Besides, different traditions are not insulated from each other in mutually exclusive systems of rules, practices, values, and criteria; there is give and take, commerce between, and understanding and learning from, different and even rival traditions. The notion of a pure isolated tradition is a myth, it is an abstraction with an illusion of reality. Although criteria of rationality grow within a tradition and make way for the continuing progress or otherwise of that tradition. This is possible only when the criteria themselves have acquired in course of the history of the tradition in which they have grown, an antirelativistic and nonabsolutistic applicability, like the mathematical models; they themselves being, of course, subject to what Quine calls revisability in the light of further experience[11]. It follows from this that is a mistake to characterize MacIntyre's theory of moral rationality as relativistic. His theory, if anything goes "beyond, to use Richard Bernstein's expression, both "objectivism and relativism"[12].

NOTES

1 cf. (a) Dewey, John, *Logic : A Theory of Enquiry,* New York : Holt, 1938. (b) Kuhn, T., *The Essential Tension: Selected Studies in Scientific Traditions and Change,* Chicago University Press, Chicago and London, 1977. (c) Lewic, C.I., ' A Pragmatic Concetion of the a Priori', in *Readings in Philosophical Analysis,* (eds) Herbert Feigl and Wilfrid Sellars, New York: Appleton-Century-Crofts, INC., 1949.

2. By discussion, as stated in the Sanskrit text, *vaade vaade tatvabodho jaayete;* i.e., a method of discovering the truth of ideas by discussion and logical argument and by considering ideas that are opposed to each other.

3. Alasdair MacIntyre, *After Virtue,* Duckworth, London, 1981, p.200.

4. Peter Winch, 'Understanding a primitive society' in *Religion and Understanding,* Basil Blackwell, Oxford, 1970; also quoted by Charles Taylor.

5. Charles Taylor, 'Rationality' in *Rationality and Relativism,* (eds.) Martin Hollis and Steven Lukes, MIT Press, Cambridge; Mass, 1982, p.92.

6. *Ibid.,* pp. 92-93.

7. John Haldane, ' MacIntyre's Thomist Revival: What Next?' in *After MacIntryre,* (eds.) John Horton and Susan Mendus, Polity Press, 1994.

8. This is following Wittgenstein's famous argument from conceptual contrast.

9. *The Cambridge Dictionary of Philosophy,* Robert Audi, General Editor, CUP, Cambridge, 1995; reprinted 1996; p.690.

10. cf. Winch, 'Understanding a primitive society'; also in B.R.Wilson, ed. *Rationality,* Blackwell, Oxford, 1970.

11. W.V.Quine, 'Two Dogmas of Empiricism' in *From Logical Point of View,* Harward University Press, Harward, 1947.

12. Richard Berstein, *Beyond objectivism and relativism,* University of Pennsylvenia Press, Philadeplhia, 1983.

PRIMITIVE PERSONS : STRAWSON RE-EXAMINED

Lipi Saxena

In this paper I propose to discuss Strawson's thesis that the concept of a person is primitive. In order to do this, my procedure will be as follows. First I state his position to the effect that according to him the concept of a person is primitive. Then I examine his arguments for this thesis. Strawason gives two types of arguments. One set is based upon his critique of the Cartesian and the No-ownership views. The other set consists of his independent arguments. Towards the end I give my own assessment of Strawson's thesis.

Strawson states his position in the following words: "What we have to acknowledge is the primitiveness of the concept of a person. What I mean by the concept of a person is the concept of a type of entity such that both predicates ascribing states of consciousness and predicates ascribing corporeal characteristics, a physical situation & c. are equally applicable to a single individual type."[1] On his account the concept of a person is primitive. We ask him primitive from which point of view ? To this question his answer is that the concept of a person is primitive from the point of view of our actual ways of thinking and talking about persons. It is primitive also from the point of view of identification of persons as distinct from the physical world. Thus, on his account, the concept of a person is primitive and not derivative, epistemologically. It is primitive ontologically also.

Persons are the basic constituents of out actual ways of talking and thinking about the world. Thus the concept is primitive to our actual conceptual framework. It is not derivative. According to Strawson, the concept of a person, the way we operate it is ontologically a basic particular or a fundamental constituent of our actual conceptual framework with respect to what we call persons. This concept is embedded in the language we actually use. It is a part and parcel of.the conceptual framework that

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we actually, as a matter of fact, operate when we speak about persons. This is a basic concept, in this sense it is primitive and not derivative within our actual conceptual framework.

Now an argument is needed to establish that the concept of person is primitive. Strawson develops the argument dialectically out of an examination of two rival theories about persons. These are :i) The Cartesian dual-substance theory ii) The No ownership theory. Both these theories propose to revise our concept of a person, one assimilates persons to consciousness, devoid of bodies, the other assimilates it to behaviour devoid of minds. Descartes' theory briefly is as follows. Descartes segregated the mind from the body. He said that there is something which is consciousness and the there is something which is not consciousness. He made this distinction a matter of logic. It something is conscious then it cannot be material, and if something is material, it cannot be conscious. The mental and the physical are not at all related conceptually or logically. If x is a body, it cannot be mind, and if x is mind, it cannot be body. The body is amenable to the laws of natural science like physics, chemistry and biology whereas these laws are inapplicable to the mind. On Descartes' view, mind and body are only accidentally and not necessarily related. Strawson points out that Descartes failed to give any satisfactory account of the relation between the two.

Strawson takes it that Descartes concept of a person is that a person is pure consciousness. On his account, Descartes theory is revisionary. The consciousness is aware of itself in all its manifestations such that one has direct access to the contents of one's mind and one has access to what is happening in other person's mind only though inductive inference. Since inductive inference is always shaky, his thesis results in skepticism about the existence and our knowledge of the existence of other minds.[2]

I know my mind only be privileged access to it. I know my pain be personal acquaintances. I have privileged access to my pain. If this a consequence of Descartes' theory, which on Strawson's view it is, it leads to all the problems of private language. One has to remind oneself of Wittgenstein's critiques of private language argument, and the observation that language is a rule governed activity and not a private affair.[3] I know my mental states by direct acquaintance but not other persons'; I know about others' by inference. This inference is based upon analogy from my own case. The premises for this inference are : 1) I know that 'I have pain' in my own case. (ii) So on the basis of analogy with my own case and observation of the other person's behaviour, I know (by inductive inference) that the other person is experiencing pain. Strawson's argument against this is that the use of 'own' and 'other's' is relative. I cannot understand someone else's pain or my own pain unless I have learnt this in the language that I speak. Therefore, to say that I have inductive access to somebody else's pain but I have privileged access to my pain is fallacious.

On Strawson's reckoning the Cartesian thesis is revisionary. It seeks to revise our actual ways of talking and thinking about what we call persons. It does violence to our actual conceptual framework, which we do in fact operate. Strawson, therefore, is content to describe our actual conceptual framework. Moreover on Descartes' view, we can think of a person without a body because on his view, there is only a contingent relationship between body and mind. But in our actual conceptual framework this is not so; a person is not a pure consciousness without a body. We always think of persons a having both a body and a mind. Thus, Strawson shows that the Cartesian view is incoherent with our actual ways of talking and thinking about persons. Whenever we talk of a person, we always talk of mind and body as one inseparable, an integrated unit and not two different things. Thus on Strawson's account : "The concept of the pure individual consciousness - the pure ego - is a concept that cannot exist; or at least, cannot exist as a primary concept in terms of which the concept of a person can be explained or analysed. It can exist only, if at all, as a secondary non-primitive concept, which itself is to be explained, analysed, in terms of the concept of a person."[4]

Now let us take the other view, i.e., the No - ownership view. This view Strawson claims, was held by Schlick and early Wittgenstein. According to this view, there is a close logical relationship between the mental and the physical such that all mental can be assimilated to the physical. On the No-ownership view, we don't have to admit the mental in our discourse, the physical alone will do. There is no question of any privileged access to my mind and any inferred access to the others. I look at others and then I look at myself, and thus I have access, of course, indirect access to my own mental states and experiences. On this account the notion of person as the one who experiences, as "I"' in "I have toothache" or as the one who is talked about is of no use to us. Even the distinction between 'mine' and 'yours' goes down. Consequently the statements like 'I have toothache', are analysed as 'There is toothache', because mine, I, yours, his, her, etc. are irrelevant to our analysis. There is no question of citing evidence, which is publicly obsevable; the so-called ownership logically has to be a contingent matter.

On Strawson's account even the No-ownership view is incoherent. The proposition which it tries to state is that with respect to any given person, all his experiences are dependent upon the state of his body; and this proposition is supposed to be contingent. But how are his experiences to be identified ? What principles are used to classify my experiences as mine ? If the answer is that they are just those experiences, which are causally dependent upon the state of this body, then the proposition that all my experiences are causally dependent upon the state of this body becomes analytic. It is just a way of saying that all experiences which are causally dependent upon the state of this body are causally dependent upon the state of this body. But what the theory requires is that this proposition be contingent. And since it admits on other way of identifying a person's' experiences, the consequence is that it defeats itself. In fact, we cannot state our case without identifying whose experiences we are talking about. So from the point of view of identification, the No ownership view fails.

In order to free ourselves from these difficulties, Strawson points out that we have to acknowledge the primitiveness of the concept of a person. To say this is to say that this concept is not to be analysed into or reduced to either the mental or the physical component exclusively. To do that would be to revise and change our actual ways of thinking and talking about persons. We are not to think of persons as a secondary kind of entity in relation to two primary kinds, viz. a particular consciousness and a particular human body. Thus, Strawson asserts that to say that x is a person is to say that two types of predicates, i.e. P-predicates and M-predicates are conjointly predicated of it. The M-predicates consist of "those which are also properly applied to material bodies to which we would not dream of applying predicates ascribing states of consciousness."[5] the P- predicates are "all the other predicates we apply to persons".[6] To say this is to acknowledge that the concept of a person is primitive within our actual conceptual and linguistic frameworks from the point of view of identification of particulars.

If Strawson's critique of both the Cartesian and the No-ownership view is accepted, then, according to him, the concept is not to be analysed into or derived from either the concept of consciousness alone as the Cartesian hold or the concept of behavious alone as the No - ownership theorists maintain. Rather it should be accepted as the basic constituent of our actual conceptual framework. Thus, this concept is "logically prior"[7] to that of either the individual's consciousness or to his or her behaviour. When we ascribe experience to others we do not simply mean that they are is such and such a physical condition or that they are behaving, or disposed to behave is such and such ways. These are just the criteria by which we determine that they are having the experience in question. These Criteria are "logically adequate".[8] I our case, we do not rely on these criteria. Our knowledge of our own experiences is not obtained by observation. But this does not mean that the sense in which we ascribe experience to ourselves is in any way different from that in which we ascribe them to others. On the contrary, it is a necessary feature o P-predicated which imply that the subject to which they are attributed is conscious, "It is essential to the character of these predicates, that they have both first and third person ascriptive uses, that they are both self-ascribable otherwise than on the basis of observation of the behaviour of the subject of them, and other ascribable on the basis of behaviour criteria."[9] On Strawson's view, thus to understand the employment of M-types and P-types of predicates is to understand the concept of a person, and conversely, to understand the concept of a person is to understand how these two types of predicates are applied to individuals.

A few comments and observations are in order here. Strawson claims that his thesis is descriptive in the sense it describes our actual conceptual framework in which we use the concept of a person as a primitive concept. But this by itself does not make the Cartesian or the No-ownership view defective. Nor does it leave Strawson's own theory free from the possibility of itself being revisionary. For, as recent studies; n the philosophy of science, example, those of T.S.Kuhn and N.R. Hanson show, no description can be said to be free from theorising or limitations of a point of view from which the description is given which has a built in constraint and tendency to make the theory revisionary. Strawson's theory in this sense can be shown to be revisionary. Consider his theory that x is a person if and only if both kinds of predicates, i.e., M- predicates and P- predicates can be truly and conjointly applied to it. On this theory even the noble animals would qualify to be included in the class of persons, a consequence which at the level of common sense we do not accept. Nor is it acceptable to Strawson himself. This shows that Strawson's own theory of the concept of a person is really not a description of what we actually call persons but it tends to be revisionary.

Further, Descartes and Schlick and early Wittgenstein were concerned with making psychology a science as for instance Physics is a science. They were concerned with developing a scientific methodology for psychology. For this purpose one denied all logical relationship between our statement about mind and the other assimilated all statements about mind to the class of statements about body. But this is no defect of their theories or their methodology; because with a view to developing a methodology which is shareable and public, their approaches have historically proved to be very fruitful. Particularly, the behaviourist's methodology has led to tremendously rich and fruitful development of research in psychology. So what Strawson takes to be a defect of these theories really is not a defect at all. Rather it is a very desirable virtue from the point of view of methodology. This shows that what Strawson does in what he calls descriptive methaphysics is quite at variance with what Descartes and Schlick and early Wittgenstein do in what Strawson dubs as revisionary metaphysics. The two had different purposed altogether, and therefore Strawson's criticism cannot be said to be relevant at all to what Descartes, Schlick and early Wittgenstein were doing.

However, his analysis is quite in line with the later Wittgenstein's conception of philosophy, namely that philosopher's job is only to remind himself of our actual ways of using ordinary language and our actual conceptual framework. The philosopher's job is only to describe and not to change or revise our ordinary language. As Wittgenstein in his Philosophical

Investigations, points out :

'Philosophy leaves everything as it is.[10].

'Philosophy simply puts everything before us, and neither explains nor deduces anything.'[11]

Strawson doe this admirably well in his analysis of the concept of a person. He characterizes the concept primitive within our actual conceptual framework and also primitive epistemologically, i.e., from the point of view of the identification of persons within our actual conceptual framwork.

NOTES

1. P. F. Strawson, *Individuals; An Essay in Descriptive Metaphysics,* Methuen, London, 1959, pp.102-103.
2. Something can be called knowledge only when it possesses the following three characteristics: (a) Belief (b) reasons and (c) truth. These three elements give us the traditional definition of the concept of knowledge as 'justified true belie'. Thus, 'I know that p' is analysed into : (i) I believe that p; (ii) I have reasons or I am justified in believing that p; and (iii) p is true. For a detailed discussion on the concept of knowledge, see R.M.Chisholm, *Theory of Knowledge,* Second edition, Englewood Cliffs, NJ: Prentice Hall, 1977; Jonathan Dancy, *An Introduction to Contemporary Epistemology.* Basil Blackwell, Oxford, 1985
3. Ashok Vohra, *Wittgenstein's Philosophy of Mind,* Croom Helm, London 1986.
4. P.F.Strawson, *op.cit.* pp 102-103 *Individuals : An Essay in Descriptive Metaphysics,* Methuen, London, 1959, pp. 120-103.
5. *Ibid,* p. 104.
6. *Ibid,* p. 104.
7. *Ibid,* p. 103.
8. *Ibid,* p. 106.
9. *Ibid,* p. 108.
10. L. Wittgenstein, *Philosophical Investigations*, Oxford: Blackwell, 1953.
11. L. Wittgenstein, *Philosophical Investigations*, Oxford: Blackwell, 1953.

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RUSSELL'S PHILOSOPHY OF LANGUAGE

AMIT KUMAR SEN

In this paper I shall develop the problems of meaning, reference and ontological commitments in Russell's philosophy of language. But before going into the details of these problems I shall give a brief sketch on philosophy of language in general.

I

Philosophers have been pre-occupied with language for a long time and for different reasons. First, they believe that certain philosophical problems crop up from misunderstanding about the structure of language. So, by properly understanding the structure of language one may solve those problems. For example, since the sentence 'No-body came in the room' is at least superficially, grammactically same with the sentence 'Tom came in the room' and since Tom is something that exists, one may think that 'no-body' is something that exist. But this is an absurd thinking caused by misunderstanding about the structure of language and how language works. Secondly, philosophers since antiquity thought that language is the reflection of reality. So, to know the structure of reality, we are to know the structure of language. They held that basic structure of language, i.e., subject-predicated form is similar to the basic structure of reality, i.e., particular an universal. To know the world is to think about the world and language is the expression of our thought. So, language, thought and reality are intertwined. This view about language, thought and reality is at least as old as Plato. In Pheado we find Plato to say 'I decide to take refuge in language and study the truth of things by means of it.' Wittgenstein in the twentieth century says language is a model of reality as we imagine it.

Philosophy of language may be defined as philosophical study of language and its working. Philosophers identify three areas in which language can be studied, namely, syntax, semantics and pragmatics. Syntax is the study of rules that specify the sequences of words permissible in a

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sentence. Philosopheres believe that syntax of language can mirror the actual relation between the basic entities of the world. Is the grammatical structure of language a real structure of it ? Is the central problem in syntax. There was a time when philosophers believe that syntax was the only legitimate study of language. The period lasted roughly from 1921, the year when Wittgenstein published his "Tractatus Logics Philosophicus" to 1935, the year in which Alfred Tarski published "The Concept of Truth in Formalized Languages". Tractatus was taken to show that only syntactics description of language is possible. Tarski showed that semantics was also possible. Semantics is the study of the meaning of words and sentences. It is the study of the relation between a word or a sentence and its corresponding state of affairs. The main problems discussed in semantics are: what is it for an expression to be meaningful ? What is it for an expression to have certain of meaning? What is it for an expression to be vague or metaphoric? What're the criteria of meaning ? What are the criteria of reference ? Are the criteria of reference absolute or relative? Pragmatics is the study of what speakers do with the language. Speakers do not simply talk. By speaking, speakers promise, forgive, apologize, insult among many other things. If a person has successfully conveyed what he meant by an utterance then he has done something with those words, he has performed a speech act. Although we may trace the hints of speech act theory in the writings of Avecenna (980-1037), an Islamic philosopher and Neo-Platonist, and Thomas Hobbes (1580-1679) an English mathematician, philosopher and linguist, J.L.Austin studied the theory explicitly and at length in our time. According to Austin not all cognitively significant talks are supposed to be true or false and that talking is a kind of doing. He argues against the logical positivists who held that a sentence is meaningful only if it has a truthvalue and shows that there are perfectly ordinary meaningful sentences having no truth-value at all. Central questions in pragmatics are : How language functions ? How language is used in different context to convery different meaning ? etc.

II

In section - I above we have said that the basic structure of language is in the subject-predicated form and the basic structure or reality is particular and universal. To know the basic structure of reality by the basic structure of language, subject-predicate distinction is important. The problem is. Do subject expressions attach to realty directly or indirectly ? In his 'Sense and Meaning" Frege argued that subject expressions, may be descriptions or proper names, refer to reality indirectly through senses. Russell went against Frege and argued that all genuine subject expressions refer directly and that descriptions or ordinary proper names are not genuine names and hence not genuine subject expressions. These are the crucial points in Russell's Philosophy of language. Russell's philosophical motivation in denying descriptions and ordinary proper names as genuine subject expressions is to explain the meaningfulness of negative existential assertions with empty subject term like 'Golden mountain does not exist' by rejecting the views of Frege and Meinong. How can a significant negative existential assertion like 'Golden mountain does not exist' contains phrases which appear to be about something and which are not really about anything at all ? Here one may either provide a denotation as Meinong does, by saying that even if Golden Mountain has no existence it has a being, or one may provide an ad hoc or conventional denotation as Frege does. In these cases Frege postulates the null class as referent. Russell rejects Meinong's overpopulation of the metaphysical universe because it is not consistent with one's sense of reality, and he rejects Frege's ad hoc denotation because it is purely arbitrary.

An important feature in Russell's philosophy of language is to find a connection between the conceptual world of meaning and the non-conceptual world of things. There are two approaches to pursue the connection: 1) To locate the point at which words make contact with things, that is, search for a criterion 'reference' and (2) to establish a basis for correlating descriptions with what they describe, that is, search for a criterion of 'meaning'. These two approaches have their common origin in the assumption that a clear-cut distinctin between meaning and reference can be estanblished.

The need for a distinction between meaning and reference does not arise in either of the two situations: (1) when a complete isomorphism is believed to exist between language and the world in which case a word which has a meaning has a reference and vice-versa. Or (II) when no correspondence whatsoever is thought to exist between language and the world either through the similarity of logical strcture or through the similarity of words and objects in which case it is not possible to talk about 'reference'. The former characterizes the world- view of Plato and Aristotle, while the latter is the position of Buddhist logician. What gives rise to the meaning-reference dichotomy is the position in the middle. The meaning-reference dichotomy enables one to maintain that not all words that have meaning necessarily have reference and makes it easy to dismiss the Platonic extravagant clain about reality. Thus meaning-reference dichotomy is not merely a linguistic conjecture of the philosophers for their convenience as sometimes thought but an ontological principle, which provides a gateway from words to things. Russell's 'On Denoting' is one of the influential theories about such a gateway.

According to Russell every word (noun or adjective) belongs to one of the two mutually exclusive categories, namely those that refer or in the terminology of Russell 'denote' and those that have meaning or 'describe'. Thus no descriptive terms refer to anything in the world, and conversely, no words that refer to the world have any descriptive content or meaning. This enables Russell to dispose of the Platonic world of essence. Moreover, most of those words that seem to refer to things actually turn out to be descriptions of them and thus even the Aristotlian world of things can be made vanish. To show precisely this is the aim of Russell. So Russell's therory of description is designed to eliminate all 'denoting phrses', that is to say, words and phrases that appears to refer tather than merely describe. The gist of the theory is as follows: All words and phrases, including proper names, which occur as subjects of sentences and purport to refer to unique extra-linguistic entities can by logical analysis be show to be really predicateds and hence as not referring but only describing. Three logical devices, the existential quantifier, universal quantifier and identity operator are used to take care of the uniqueness of reference of definite description. The existential quantifier (∃x) assures that there is at least one entity to which a given set of descriptions belong, the universal quantifier (y) together with the identity operator (=) take care of the at most requirement by stipulating that all those entities to whic belongs that same set of descriptions are identical with x. Thus let 'P' and 'Q' stand for descriptions, then the logical form of all description of the type "the so-and-so is such-and-such" will be $(\exists x)\ [Px \ \&\ Qx \ \&\ (y)\ (Py \supset x=y)$. The achievement of the theory of description is that a unique reference can now be made without directly identifying the object of reference with the general terms that describe it. Hence the use of general terms need not commit one to ontology of entities described by such terms.

Difficulties aris, however, when one moves from the logical analysis of unique reference to the epistemological question as to how is the bearer of the descriptions, that is, the referent of the subject term, identified in the first place so that descriptions can be predicated of it ? Moreover, must it not be assumed that there actually is something to be identified before one can takl about the ways and means of identifying referents ? Thus the epistemological problem concerning the ways of knowing referents leads to the ontological problem as to what counts as a 'referent'. Russell is prepared to face both the problems, which he considers central to any theory of knowledge. Thus he regards it as at least a necessary condition for the possibility of empirical knowledge that the object whose description is given be identiiable. A description or a denoting phrase is essentially part of a sentence but does not have any significance on its own accout. So, unless the description is associated with some definite, identifiable referent, the description cannot be understood simply because there would be no way of knowing what it is a description of. (This is why Russell calls descriptions 'incomplets symbols' which have absolutely no meaning whatsoever in isolation but merely acquire meaning in a context, that is, when they are connected to a subject which in the last analysis is the logically proper name). According to Russell, then, there are words which are purely referential, that is, they are genuine subjects whose referents are the bearers of descriptions. Russell calls such words as 'logically proper name', an example of which is the word 'this'. Thus all statements asserting something about the world are reducible in the last analysis to the form 'this is that', where any description may be substituted for 'that' and this is the subject of all such descriptions. The word 'this' has no meaning apart from the context in which it occurs as a subject of descriptions. Its meaning is its description, which is to say that its sole function in a statement is to refer.

How the referent of 'this' is known ? Russell gives the answer to this question in his theory of knowledge. There are only two ways as Russell thought of obtaining knowledge about the world. These are : knowledge by acquaintance and knowledge by description. Knowledge by acquaintance consists in direct sense experience and is the basis of all other kinds of knowledge, including knowledge by description. The referent of 'this' then is the object of direct sense experience. The object of direct sense experience, according to Russell, is sense data. Prima facie, the statement 'the object of direct sense experience is sense data' seems to involve no ontological claim, insofar as sense data refers merely to the content of sense-experience. However, in closer analysis, it is evident that either an ontological claim is involved in the statement or it is vacuous and at the botton circular. It is vacuos and circular if 'sense data' is taken to be just 'obect of sense-experience' and nothing more or nothing less iss meant by it. For if it is asked, what kinds of things are 'objects of sencse-experience', 'sense data' is the only answer. But as soon as the object of experience is taken to be direct from and something over and above the experiencing of the object, the question arise, what constitutes the object as distinct from the experiencing; and that, of course, is an ontological question. At least in the period of his 'Logical Atomism' Russell maintained that sense data are 'ultimate particulars' which are not to be identified with the experiencing of particulars. This leads Russell to the view that there are extra-linguistic ' facts' about which assertions are made in linguistic phrases. According to Russell, the bridge from language to the world is a "revocable temporary a-priori connection" which holds between the ulitmate linguistic particular, the logically proper name, and the ultimate extra-linguistic particular, the sense data.

Thus we see that Russell's theory of description is very intimately connected with his theory of knowledge. Quine admires Russell's theory of descriptions, but he does not accept Russell's theory of knowledge. For Quine, the most enlightening discovery of the theory of descriptions is that one can talk meaningfully about what the world is *like* without the need to speculate *what* it is.This accords with Quine's conviction that besides descriptions, which tell us what the world is like, there is nothing else that can be conveyed about the world by means of words. To talk about 'extra-linguistic particulars' and to connect them with linguistic particulars, for

Quine, a metaphysical speculation and Russell's theory of descriptions need not entail his theory of knowledge.

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SCIENTIFIC DISCOVERY : A RE EXAMINATION

Manjari Chakrabarty

In his highly influential *Logik der Forschung* (1935) Popper has made an explicit distinction between the psychological processes which occur when a scientist thinks of a new idea or theory and the methods of examining it logically. The act or procedure by which a theory is invented or a new idea is formulated, insists Popper, is not susceptible of normative, critical treatment, and, therefore, falls outside the proper domain of philosophy of science. What holds fascination for him is the rigorous critical examination and justification of 'finished' theories, i.e., of theories 'already on the table'. Following Popper philosophers concerned with science have chosen more or less to deemphasize the processes of discovery and have taken as their central preoccupation how scientific theories are tested and how choices are made among competing theories.

This discovery-justification dichotomy has received little critical attention until the stimulating challenge of N.R. Hanson and the study of historical cases by T.S. Kuhn . Over the past two decades a great many philosophers of science have become sensitive to the fact that to exclude scientific discovery (and consequently, the creative aspect of the scientific enterprise) from their domain of professional interest amounts to neglect of highly relevant phases of scientific research. My intention in this paper is to show how a little more attention to the processes of hypothesis-generation would have helped Popper avoid a number of critical attacks in relation to his views on the nature of scientific research and the growth of knowledge.

Popper, as we all know, denies any such possibility of a logical, rational reconstruction of the psychological processes of scientific discovery. As discovery is purely a non-rational affair permeated with inspiration, insight, and intuition, the questions of how scientific theories are originally

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generated, he feels, should have no place in philosophical discussions.

This Popperian view of discoveries as mysterious, momentary, unanalyzable flashes of insight has not gone without challenge. Kuhn, for instance, on the basis of historical examples, shows that discoveries have a structured history and are rarely localizable at a precise place and time. Rather than treating discovery as a complex development extended in both space and time, Popper has construed it rather narrowly as concerned with the 'eureka moment'. 'Eureka moments' are those ephemeral moments of insight, often attended by feelings of illumination, which accompany the dawning of important scientific discoveries. This momentary, psychological conception of discovery seems to have a strong influence of what might be called the 'classical view' of creativity. This classical view, according to which the act of creation is mysterious, ineffable, places great emphasis on an inexplicable thing called 'intuition', on sudden moments of illumination . Some support for this 'genius'[1] view of creativity come from the introspective self-reports by acknowledged creative persons like Kekulé, Poincaré, and Helmholtz. These are used by philosophers, like Popper, to attack the 'narrow inductivist conception of scientific inquiry.'

Another possible source of this portrayal of discovery as a mysterious, momentary, psychological affair might have been the difficulty, for historians and philosophers, of providing intelligible descriptions and explanations of deep and important discoveries. Fortunately, there has emerged in recent times a new kind of inquiry into scientific activity that avoids reducing creativity to a mystery defying all forms of understanding. Armed with analytical tools derived from cognitive psychology on the one hand and computer science on the other a new breed of investigators have begun to probe into the cognitive processes of scientific discovery. Most of these studies have dealt with specific historical cases. As a result of their detailed historical and psychological research into particular creative episodes, these researchers have rejected, at least in the cases of the episodes they have examined, the validity of the very idea of what Popper calls moments of 'poetic intuition' as being the sine qua non of the creative act.

Philosophers of science over the past three-four decades have also criticized the Popperian thesis that does not permit intelligible explanations of how scientific discovery is possible. Many thinkers have complained that studying the mere testing, justification, and acceptance of 'finished' theories and letting generation go unexplored results in a very distorted conception of scientific activity[2]. My intention is not to get involved into the debates on whether or not there exist algorithms or quasi-algorithmic discovery procedures, whether or not there can be a logic or specific rational procedure for 'real', 'creative' discovery. In what follows, I shall attempt to show that Popper's argument (that there is nothing in the context of generation for philosophers to study as it has no normative dimension) rests on a misconception of the nature of scientific discovery.

'Discovery' seems to be a notoriously ambiguous term. It may mean the production of an idea which initially seems worthy of a second look in relation to the problem at hand; or in a somewhat stronger sense, the generation of an idea which is pursuit worthy, i.e., worthy of serious scientific investigation, or one could even use the term 'discovery' in the strong achievement sense and so include within discovery all reasoning up to the scientific acceptance of an idea by the relevant scientific community. Notice that the evaluation of an idea entails not only a closer inspection of its intrinsic scientific merit but also what relevant people think about it. There are several non-psychological (i.e., social or historical) criteria that are used for judging the significance, importance, or originality of a scientific work. We will come to this point a bit later.

The traditional, logical distinction between the purely descriptive discovery context and the normative justification context has lost much of its philosophical interest by being formulated in many different ways by different writers. A group of later researchers tend to view science in the large as a three-stage process, viz., generation, pursuit, and acceptance, all three being stages of the discovery process.[3] They separate discovery into a generation or initial thinking phase and a pursuit phase and divide justification into a prior phase often termed 'preliminary evaluation' and 'final' justification. Preliminary evaluation or assessment applies to the situation in which a theory or a theory sketch already has been generated but is not yet ready for complete and rigorous testing. This important part of scientific activity does not belong to discovery in the sense of theory generation, because the basic ideas are already available, neither does such research fall squarely within the context of 'final' justification. This important work of articulation,. modification, and clarification etc. of the theory can be identified with the 'pursuit' phase and thus belongs to discovery in the broad sense of the term.

The old and narrow conception of discovery (as a momentary psychological act of conceiving a theory) has led Popper overlook the necessity and significance of this phase of scientific research, in which ideas developed within a framework are fleshed out, articulated and extended. Such intensive periods of convergent research are referred to by Kuhn as 'normal science'. Kuhn's view on normal science as characterized by a paradigm has most disturbed his critics. But while there no doubt are passages where Kuhn overdoes the need for scientists to be 'committed' to their paradigm-constituting general theories, and while (as he himself later admitted) there is no doubt that he greatly overdoes the 'paradigm monopoly' view, I think he surely has drawn attention to a very crucial and then relatively neglected aspect of scientific development.

However imperfectly Kuhn might have illustrated the concept of normal science, his merit lies in seeing that most of the ideas which play a part in science are not perfect when they first take shape, rather they need to be articulated. There is evidence that what has excited so many philosophers in Kuhn's account was already known to scientists like L.Boltzman, M.Planck, S.Chandrasekhar, J.D.Barrow and others. Boltzman's description of the development of a physical theory bears close resemblance with Kuhn's illustration of normal science[4]. The splendid examples of the sorts of work scientists are concerned with, and which they carry out with greatest efforts presented in a lecture given by Chandrasekhar are strikingly similar to what Kuhn calls normal research projects'.[5] Planck and Barrow agree on the point that this distillation or refinement of existing ideas into more embraceable forms is a continuous and crucial part of the scientific enterprise[6].

The strongest opposition to this Kuhnian view has been voiced by Popper. Normal research, in Popper's opinion, is a 'danger' to science. However, he cannot but acknowledge the fact that Kuhn discovered something which he has failed to see[7]. What Kuhn discovered though disturbing and dangerous, is, Popper admits, a real phenomenon. Normal science, pursuit-phase on preliminary evaluation - however we describe it, this part of scientific thinking has been neglected by Popper. This 'pursuit' or 'preliminary evaluation' has often been confused with discovery in the sense of generation. Several philosophers now recognize the need for 'pursuit' as a middle stage between the context of discovery in the sense of generation and context of 'final' justification, though they do not all conceive it in exactly the same way. However, separating generation from pursuit or preliminary evaluation must not lead us to make the mistake of assuming that generation is devoid of all evaluation and is an irrational act. This would simply reinforce the old view of science as a two-stage process of discovery and justification.

I now want to argue that at the root of Popper's 'momentary psychological conception' of discovery lies an oversimplified account of theory production. This account sees the 'trials' in the 'trial and error method' of science as 'random' or 'blind' - uninformed by the epistemic environment into which they are to be launched. Just as mutations in Darwininan theory are not environment-directed, so scientific theories, according to Popper's Darwinian account of theory-production, are generated in a way that is blind to existing epistemic needs, although, once generated,they are subjected to rigorous selsective pressure. Popper seems to have committed the mistake of thinking that there are only two alternatives; the 'narrow inductivist conception of scientific inquiry' (Which maintains that scientists are in possession of a mettod which enables them to infer mechanically scientific theories from an exhaustive collection of facts) and the mysterious, momentary, psychological conception of scientific discovery, which, as has already been noted, under the influence of the 'classical' or 'genius' view of creativity describes the act of creation as ineffable, wondrous. Having devoted much attention to criticizing the former view, Popper has come up with claim that the great scientists, guided by intuition or inspiration of an aesthetic character (rather tha by 'rational thought')[8] conceive 'bold' guesses and then subject these 'free creations' of their minds to rigorous critical examination.

Histroy and a little reflection suggest that the scientists do not simply guess their theories, they don't make bold Popperian conjectures. It is worth mentioning, at this point something that philosophers (like Popper) frequently overlook: in an important way sets of more or less rigorous rules, routines or heuristics for discovery are not only possible but already exist.[9] Although we do not have and probably will never have, anything like algorithmic rules for generating novel theories, it would be a great mistake to dismiss the enormous progress made in, what Nickles calls, the 'logics' of discovery. Kuhn's fundamental idea developed in *The Structure of Scientific Revolutions* is that of 'normal science' practiced under the aegis of a 'paradigm'. A paradigm, in his view, involves not just substantive assertions about the world, but 'heuristics', which guide the construction of specific theories. Lakatos's idea of a research programme characterized in part by its 'positive heuristic' is an attempt to characterize this aspect of science in a more precise way. Laudon has also asserted that research traditions can play a vital heuristic role in the construction of specific theories. Succintly stated, the point is that at any stahe of the development of science, there are ideas about how to construct theories and how to modify theories should experimental difficulties arise.

There is also a largely independent development of the idea of 'rational heuristics' within the Artificial Intelligence literature, beginning with Herbert Simon and Allen Newell (in 1958). Artificial Intelligence, the branch of computer science most concerned with the task of making artifacts exhibit capabilities usually associated with human thought and reasoning, provides a powerful language by means of which cognitive processes can be described effectively. Inspired by the pioneering and celebrated work on problem solving done by Simon, Newell and their associates Subrata Dasgupta has framed a 'Knowledge-Level Hypothesis on Ideation' (KLHI) in the realms of the natural sciences and technology[10]. In order to test KLHI a full length study of the invention of micro programming has already been conducted by him.[11] What has emerged is a plausible description of a cognitive process whereby Maurice Wilkes, given his specific circumstances, might have arrived at the idea of microprogramming.

Implicit in these sort of approaches is the claim that scientific discovery is not a product of unfathomable intuition, theory-construction is not (just) a matter of lucky guesswork. Several writers, for instance John Worrall, Elie Zhar and a few others, have illustrated the beneficial influence of 'background knowledge' on the generation of scientific theories. Worrall's brilliant analysis of how Fresnel might have arrived at his new transverse theory shows that there is nothing in this process that even remotely resembles the production of a bold conjecture following the refutation of the earlier theory. Rather it can be reconstructed as a systematic and logical argument based on background knowledge.[12] The studies of Simon, Dasgupta and other contemporary researchers also lead us to believe that reasoning and logic may play a key role in the domain of discovery.[13] This contemporary focus on the role of reasoning in the context of theory formation and preliminary evaluation is no doubt a far cry from Popper's flat denial of there being a 'logic' of discovery.

Those who are in sympathy with the Popperian line of thought go so far as to suggest that since real 'creative' discoveries involve radical departures from what went before, discovery cannot be made intelligible to reason. Whenever we set out the path to discovery in the form of reasoned argument, that undercuts claims for its creativity. Clearly this is a position that equates 'creative' with 'irrational' and thus characterizes real, creative discoveries as unexplainable. The absurdity of this position comes to notice once we take a closer look into Dasgupta's reasonably precise characterization of creativity. But before going any further let me consider a crucial point. To present a detailed, systematic account of how a particular act of creation took place is not necessarily to ignore the contingent nature of such an act. The researchers who are trying most diligently to provide us with a rational reconstruction of the period of theory generation are perfectly aware of the fact that creativity is not a deterministic phenomenon and no theory of creativity can be predictive.[14]

For a variety of reasons when we talk or write about scientific discovery we tend to dwell on the great names and the great events - Newton and universal gravitation, Einstein and relativity, and so on. Even Popper, argues Kuhn, is not immune to this tendency. In Kuhn's view of science there exist significant qualitative differences between the processes of revolutionary science and normal science, between the work of high creativity and mere journeyman work. Popper, who has been criticized by Kuhn for the reason mentioned above (that he has only such major revolution or great discoveries in mind when he thinks of science) also speaks sometimes of 'less' and 'more' revolutionary periods, of 'minor' and 'major' discoveries.[15] What probably influences such views is the assumption that not every act of scientific discovery (or scientific problem solving) counts as a 'creative' act. This invokes a crucial question – what exactly we mean when we apply the word 'creative'? A closer look at Dasgupta's characterization of creativity will be instructive at this point.

Cognitive scientist Margaret A. Boden has introduced a distinction between two senses of creativity, namely 'psychological' (or P-creativity) and 'historical' (or H-creativity), which relate to the conception of fundamental novelty. Dasgupta proposes a further refinement of Boden's conception of psychological and historical creativity, and distinguishes between 'mere novelty' and 'true originality' in both personal-psychological and communal-historical contexts. Novelty and originality, which are frequently considered to be characteristic of the creative solution, are not to be judged in any absolute sense. Rather they are functions of and relative to specific 'bodies of knowledge' and the agent or community under consideration.[16] This term 'knowledge body' has been used by Dasgupta to mean an integrated and organized collection of facts, theories, rules, exemplars, models, beliefs, metaphysical commitments, and values pertaining to a particular subject matter or domain. Such knowledge bodies – their constituent facts, theories, values, standards, and so on change over time. Clearly what Dasgupta has termed as 'knowledge body in the natural sciences is precisely what Kuhn first termed 'paradigm', modified later by Lakatos to 'research programme' and then to 'research tradition' by Laudon. As Laudon has pointed out that there may be more than one research tradition attached to a domain Dasgupta also admits the possibility of there being more than one knowledge body associated with a domain. A 'knowledge body' associated with a particular agent and pertaining to a particular domain is referred to by him as the agent's 'personal knowledge body' about the domain. On the other hand, a knowledge body associated with and shared among a community of agents and relating to the same domain is called the 'community's public knowledge body' about the domain. Now any thought product or cognitive construct, say X, will be said to be 'psychologically novel' or PN- creative for the agent if the agent's personal knowledge body contains no other thought product that is identical to X. If the agent believes that X significantly contributes to the relevant community's public knowledge body associated with the domain, then X will be 'psychologically original' or PO-creative for the agent. If, in addition, the relevant community firmly maintains that there exists no other thought product in its public knowledge body that is identical to X, then X will be held to be 'historically novel' or HN-creative for that community. Moreover, if the community agrees that X is important in advancing the 'state of the art' of its public knowledge body then we shall say that X is 'historically original' or HO creative.[17]

Of these various types of creativity, a thought product that is considered by the relevant community to be 'historically original' represents the highest type of creativity. Now let us see what is meant by 'contributing significantly to the community's public knowledge body' or by 'advancing the state of the art' of that domain. It is widely agreed among scientists, historians and philosophers of science that a discovery or invention that leads (immediately or eventually) to a major change in the conceptual structure of knowledge in that science or that opens up a new field of study, a new class of research problems, contributes significantly to the relevant community's public knowledge body. Such a discovery or invention which appears revolutionary and highly original in nature must be regarded as HO- creative.[18]

Two crucial points are to be noted here. First, as Csikszentmihalyi reminds us, one cannot study creativity by isolating individuals and their works from the social and historical milieu in which their actions are carried out. This is because what we call 'creative' is never the result of individual action alone, it is the product of three main shaping forces: field (which corresponds to Dasgupta's 'community'), domain, and individual.[19] The relevance of non-psychological factors has been made evident by several creativity researchers like H.E. Gruber, D.N. Perkins and others.[20] They even go so far as to claim that these non-psychological factors are of intrinsic interest for these very same factors (social, historical or axiological) employed by the community in judging the originality of a particular thought product will also participate in the individual's thought process that generated the product. The admissibility of such a thesis depends no doubt, on careful examination (which is far beyond my concern here). What excites me, however, is the close resemblance between the thinking of these creativity researchers and the views proposed by the contemporary philosophers of science regarding the untenability of the absolute distinction between the context of discovery and that of justification.

The second point that is revealed demands more attention. What emerges to be a hallmark of the highest type of creativity (i.e. HO-creativity) constitutes the very essence of the Kuhnian notion of scientific progress and, when carefully construed, of Popper's theory of the growth of knowledge as well. Kuhn's doctrines have generally been interpreted so as to give rise to Relativism, the idea that there are no truths, or at least nothing can be asserted to be true independent of some point of view and that disagreements among points of view are irreconcilable. Critics wonder, if the differences between successive paradigms are both necessary and irreconcilable, and if those differences consist in the paradigms being 'incommensurable' – if they disagree as to what the facts are, and even as to the real problems to be faced and the standards which a successful theory must meet - then how can it be said that 'progress' is made when one paradigm replaces another? In face of such attacks Kuhn makes clear the very real (though not 'Realist') sense in which he firmly believes in scientific progress. Paradigm-changes imply progress roughly for two reasons. First, these dynamic, radical theory transitions, Kuhn believes, involve conceptual reconstructions often as strange as those one makes in correcting an inverted vision. He relinquishes the notion that theory changes carry the scientists closer and closer to the truth and insists that progress consists in these noncumulative paradigm shifts which make the scientists undergo a drastic transformation of vision, and make the scientists see the world of their research engagement differently. Secondly, these radical theory transitions (or paradigm changes) usually produce new divisions between new scientific specialities, each with its own lexicon, and with its own area of knowledge. After such dynamic changes there are more cognitive specialities or fields of knowledge than there were before. It is by these divisions that knowledge advances. [21]

Now let us consider the views of Popper who, inspired by the basic tenets of organic evolution through natural selection, propounded by

Darwin in his *Origin of Species (1859)*, subscribes to the evolutionary approach regarding the problem of knowledge. He presents a schematic representation for the growth of scientific knowledge through error elimination by way of criticism, which is as follows : P1 – TT - EE - P2 . Here 'P1' refers to the initial problem situation challenging the scientists. 'TT' stands for the tentative theory proposed as a solution to the problem encountered, whereas 'EE' refers to the process of error elimination by way of critical discussions and experimental tests. These critical examinations invariably generate new more and deeper problems. 'P2' refers to the new, revised problem situation that emerges from this trial and error process. In the light of this schema science appears to be a growing system of problems, as scientific knowledge grows from old problems to new problems, problems of ever increasing depth and fertility, through error elimination by way of systematic criticism. Implicit in it is the idea that scientific knowledge is a phenomenon that grows not only in its content but also in its promise in opening up new avenues for our better understanding of the world. To put it in other words, ideas and discoveries are deemed significant (in the sense of implying epistemic progress) when they spawn new fields of enquiry, when they uncover new class of research problems.

Popper, in addition to what has just been said, never fails to see the importance of revolutionary changes in science. Even Kuhn, one of his greatest critics, admits that despite substantial differences their views of science have something in common : they are united in opposition to the thesis that science progresses by accretion. They emphasize instead the dynamic, revolutionary process by which an older theory is overthrown and replaced by a new one. Though Popper is fully convinced that progress in science is revolutionary (in the sense that the new theory 'contradicts' its predecessor and 'overthrows' it) he is led into difficulties as soon as he presents the 'principle of correspondence' as a requirement for the acceptance of a theory 'already on the table'. We'll come to see why he faces such troubles and how his critics misread his intentions in a moment. For now let us see where, according to Popper, lies the seed of revolutionary progress. In order that the successor theory should represent a triumph over its predecessor, it must have new and testable consequences which were unobtainable from its predecessor; it must lead to prediction of phenomena which have not so far been observed. In simple words, the successor theory should contradict its predecessor in several points, and, what is more important, in contradicting its predecessor it must be successful. For example it follows from the theory of relativity that a clock placed on the sun would have a different rhythm from one placed on earth, since the influence of the gravitational field is much stronger on the sun than on the earth. This effect has been measured in different ways. Planets in motion require small corrections to the Newtonian orbits, as demanded by Einstein's theory. These have also been generally verified. In particular, the anomaly in the motion of the planet Mercury was explained by Einstein's theory. This shows that the basic concepts on the strength of which Einsten's predictions were made are fundamentally different from the concepts on the basis of which Newton's predictions were suggested. At the theoretical level 'gigantic divergences' exist between these two successive theories. Consequently the radical changes that have taken place at the level of fundamental theory imply non-cumulative progress.

The close link between 'creative' work (in science) and the advancement of scientific knowledge thus explained, I now proceed to argue that a little more attention to the issue of theory-generation might have helped Popper silence his critics. The 'correspondence principle' which has often been stressed by Popper as an *ex post* appraisal criterion, is the requirement that, in case of theory change, the new theory, if it is to gain scientific acceptance, must always share the empirical success of the old theory. A new theory generally achieves this feat by 'going over' to the old in the empirical domain in which the old was successful. As the successor theory preserves the 'empirical success' of its predecessor, progress in science, Popper insists, although revolutionary, is in a certain sense always 'conservative'. By stating this thesis what Popper wishes to overthrow is the Kuhnian suggestion that successive theories are incommensurable. In science, he strongly believes, a critical discussion and a comparison of various competing theories is always possible. However, critics feel that Popper clearly admits to cumulative progress at the empirical level (as the successor theory explains all of the phenomena successfully explained by the old) and at the instrumental level as well (because the successor theory allows us to deal with nature at least as well as the old theory did). Though Popper himself has never used the word 'cumulative' while emphasizing the conservative aspect of scientific progress, Laudon interprets his thesis as that of development by accumulation of content.

Popper has often asserted that Newton's theory 'contains' both Kepler's laws and Galileos's law of falling bodies, while Einstein's theory 'contains', in a similar way, Newton's.[22] Now this, Popper thinks, is a 'strange' way of containing for we can show logically that Newton's system contradicts Kepler's and Galileo's, just as Einstein's logically contradicts Newton's. It strikes Popper as 'strange' because he believes in an oversimplistic, romantic account of theory construction. Moreover, his failure to explain this conservative aspect of the advancement of science results in a misrepresentation of his views as the positivist thesis of growth by accretion. If scientific theories are mere 'bold' and 'lucky' guesses produced by irrational intuitions rather than by rational thought then the fact that a successor theory, like Einstein's, is, as have been thought by many (including popper himself) more comprehensive than its older rival, like Newton's, seems puzzling. Contemporary philosophers of science are of the opinion that it is a capital mistake to suppose that reasoning has at all no role to play in the act of theory generation. Here again we find creativity researchers joining hands with the philosophers. For instance, on the basis of his empirical studies, D.N. Perkins has refuted the belief that reasoning is anathema to creativity.[23] Monk draws attention to the obvious but neglected empirical fact uncovered by Hanson: scientists think up their hypotheses, work out their theories, solve their problems often by a process of reasoning.[24] Elie Zahar has shown that the 'correspondence principle' is quite often deliberately and consciously used in the construction of the new theory. This means it is used as a 'heuristic' principle.[25]

All this is not to suggest that there is a way of mechanically generating new ideas. The fact that theory construction is in some sense a rational process does not entail that it is a matter of mere algorithmic calculation, with no need for imagination and intuition. I have no intention to undermine the powers intuition, imagination or even of the sense of beauty which have guided (at least some of) the great scientists in developing new ideas or theories. There is no doubt about the fact, often pointed out by Popper, that scientific theories are 'free creations', 'products' of the human mind and not the results of many observations. But they are not irrational guesses. The scientists arrive at their theories in a way, that while it no doubt involves intuition and creativity, can nonetheless be viewed as a systematic argument based on previous success in science. Many examples can be given in support of the thesis that scientific theories are generated in a way that is not completely 'blind' to existing epistemic needs. As Worrall's analysis shows, the way that Fresnel produced the transverse wave theory of light is clearly 'instructed' by the epistemic environment .[26] If one is prepared to reject the old Popperian notion of theory construction, and to take a closer look at the role played by logic and reasoning and at the use of heuristic principles, such as the principle of correspondence, in the process of generation the perspective which emphasizes the role of greater comprehensiveness in theory change will appear no longer 'strange'.

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HUMAN RIGHTS IN BUDDHIST PERSPECTIVE

ABHA SINGH

The origin of the concept of human rights may be traced in Western liberal thought. Although, it is a modern concept, "free individuals standing for their rights are the best fruit of modernity".[1] one may walk down the memory lane and trace it through Protestantism and the Renaissance, and ultimately back to the Biblical concept of human being. Nevertheless, the term 'human rights' is a modern concept the idea of human dignity and the importance of human existence has been the basis of all cultures.

Normally, human rights means rights of the human individual in all spheres of social life. These rights are held to be exercisable by the individual against those who possess political and economic power and also against harmful social customs. Nevertheless, society has also some rights vis-a-vis the individuals, who compose it. However, rights of the society take the shape of duties ad obligations of individuals. Rights of individuals may be designated as freedom and equality while social rights may be designated as the moral and legal obligations of individuals. As an individual can experience freedom only in a society, which is necessarily moral, the rights and duties of the individual may be held as inter-connected. Hence a healthy society would comprise a couple of essential components -- freedom and morality. Moreover, in the development of an individual i.e. his talents and capabilities, the role of society is crucial. In other words, progress of the individual is impossible in the absence of a progressive society, a society which contributes to the progress of the individual. Thus the most important issue of human rights is how to save morality without undermining individual freedom and moral sense.

In the backdrop of the above discussion it can be safely held that the concept of human rights is quite close to the concept of humanism. Humanism may be defined as a philosophy and an attitude of mind that gives primacy to human individual and recognizes his/her right to live as a

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free individual with dignity. Such recognition is the basic principle of human rights. Thus humanism provides philosophical background to the concept of human rights. However, Buddha realized the deeper significance of human existence. He concentrated upon the primacy of human interest and felt that no super human or divine entity, other than his deeds, would be able to change man's destiny. Hence, the Buddhist philosophy may be characterized as Humanism. Humanism is not merely a theory but it is predominantly practical in outlook. Basically it is concerned with the ways which would be helpful in the elimination of human suffering. Buddha fully realized the voidness of mere theoretical solution of suffering. It is due to this reason that his doctrine of Four Noble Truths are not only able to explain clearly the human suffering, but also the way to its elimination in the form of Eightfold path. Through the recognition of theory and practice Buddha discoverd the way to the humanization of man and the regeneration of man as a strictly human being. All this projects Buddha as an ardent supporter of humanism and thereupon a champion of human rights.

Although Buddhism is mainly concerned with ethical problem viz. that of suffering, it presupposed the metaphysical problem that everything is impermenent. Buddha felt that the two problems are correlated. Therefore, in order to discuss human rights in Buddhist perspective it is apparently proper to discuss it in the light of the two basic tendencies in Buddhistic thinking __ metaphysical and ethical.

Metaphysical Point -of-View

The gist of metaphysical view-point in Buddhism, all things are subject to change and decay (*sarvam antiyam),* is based on the Buddhist cardinal doctrine of 'everything is suffering' (*sarvam duhkham*). Buddha was absolutely convinced through his own observation the whole world to be full of misery. Long and arduous years of penance made him realize that misery is due to the transient character of reality. Explaining this aspect of Buddhism Mrs Rhys Davids says:

> According to Buddhist, there is no being, there is only a becoming, the state of every individual being ustable, temporary and sure to pass away. Everything, be it person, a thing or a God, is, therefore merely a putting together, of component elements. Further, in each individual without exception, the relation of its component parts is

> eternally changing and never the same for two consecutive moments. Putting together implies becoming, becoming means becoming different, and becoming different cannot arise without a dissolution, a passing away, which must inevitably at some time or other be complete.[2]

Apropos of the thesis of impermanence it appears that the concept of 'human rights' would be alien in relation to Buddhist philosophy. This is for the simple reason that the basic precept of human right involves an autonomous and free individual which appears to be contradictory to the prinicple of impermanence. Moreover, right of an individual involves others as well. It is the other which makes the concept of right meaningful.

Undoubtedly, Buddhism is a man centred religion but the centrality of man does not in any way go against the theory of impermance. However, Buddhist's concept of man is somewhat different from the common view that there is an abiding substance in man. The general belief is that while body is such which goes through changes *atma* does not change. According to Buddha there is no such soul as there is no continuity of an identical substance in man. But he does not deny the continuity of the stream of successive states that compose one's life. In his view, life is an unbroken series of states in which each of the state depends on the condition just preceding and gives rise to one just succeeding it. Thus Buddha explained continuity of life series on the basis of causal connection running through different series. Hence, in order to focus Buddhist view on human rights it is seemingly plausible to project it in the light of their concept of man.

Concept of Man in Buddism

By denying the existence of any super-natural controlling power Buddhists rejected ritualism and emphasized upon human will and action. They posit man as the maker of his destiny.

The imortance of human action and will may be derived from the last sermon of Buddha to his disciples in which he preached to take only themselves as their guide and light. Buddha says, "'you should be carried away in favour of a doctrine... neither by hearsay, nor by tradition, not by scriptural authority nor by mere logic or argumentaion, nor even by teacher's personal charm and such other things. You should accept a doctrine only after employing your own reason and discretion, after having known it to your utter satisfaction and conviction"[3]. Such views of Buddha led early Buddhists to adopt a consistently dynamic and analytic approach to personal identity. But Buddhists were not interested in understanding man's nature for its own sake. Their highest goal was *Nirvāṇa* which they characterized as the cessation of all suffering. Being a thorough realist and empiricist, Buddha not only accepted the reality of man, he did not rest content with the realization of the plight of man. Hence he made it the basis of his shcheme of *Nirvāṇa.*

However, Buddhists view of man is an implication of their doctrince of 'self'. They used the word 'self' to denote two separate entities, one is metaphysical and another is psychological. The latter sense of self is identified with that of 'man'. Hence the denial of self in the former sense does not mean the denial of man.Thus, the denial is restricted to a unitary, homogeneous, non-empirical substance called *atta*; 'self'. Either such a substance itself has been held illusory or the identification of empirical self with it has been questioned. This is all that is signified by the *anatta* (no-self) doctrine. But denial of unitary self is not denial of soul."[4]

Again in the Pali texts[5] man is viewed as a union of body (form) and consciousness (rūpa). While consciousness denotes the mental aspect of man, body denotes the physical. Hence personhood is ascribed as a composition of body, feelings, cognition, activities and consciousness. These five factors are supposed to be the base of the cosmos as well. Hence, man is microcosm of the marocosm. Birth is explained as the unification of the above mentioned factors and death as their breaking up which leads consciousness to move on to start a new person. The stream flows on a continual flux which still retains a distinct identity. Every link of the series influences the following links and the links that come later, being links of the same chain automatically accept the responsibility for the deeds by the preceding link. The series or link of lives reaches a final end only when one succeeds in overpowering one's ignorance (inability to see the truth) and attachments which requires arduous mental and physical training and a special kind of intellectual ability. Realizing the peculiarity of human existence Buddhists assert that man recognizes the distinction between what he is and what he is distined to be. Hence, what man is destined to be is not unconcerned with what man is. In other words, the goal is enlightenment which is concerned with the spiritual aspect of life, it cannot be separated from the other aspects of life such as social, political, psychological, cultural etc. Since all these are concerned with the ethical life of man it is now appropriate to discuss Buddhist's ethical view-point.

Ethical Point-of-view

Putting emphasis on human will and action Buddhists assert that man is the ultimate architect of his own destiny. Besides they put equal emphasis on wisdom and on the development of character towards moral excellence for the benefit of both individual and society. Hence Buddha ascribes amn with profound freedom. Buddhists purport that towards the attainment of a higher state of existence this freedom should be exercised by anybody. It will not be an exaggeration to state that the Buddhist ethics fully rests on a rational basis rather than on theological basis as is found in early Vedic ethics. Hence Buddhists enjoined a short list of responsibilities to individuals through the five precepts which were taught in the Buddhist world from the time of Buddha. The precepts are as follows :

> I undertake the precept (1) to abstain from the taking of life; (2) not to take that which is not given; (3) to abstain from misconduct in sensual actions; (4) to abstain from false speeh; (5) to abstain from liquor that causes Intoxication and indolence.[6]

These precepts were applicable to each individual and thereupon to all sections of society. In Buddhist social philosophy we find that the society was supposed to involve three divisions. These divisions are the *Sangha* i.e. the spiritual community, the society of the common people or householders and the state which is supposed to take care of the former. The three are conceived as interlinked and interdependent as the well being of one depended upon the well-being of the other two.

As I have discussed elsewhere[7] society is world comprising individual persons, each intrinsically valuable. Every rational society tries to foster and encourage the highest possible development of all the capacities of personality in all of its members. The end is justice or right ordering of a society and is called social justice. It is a balance between individual rights and social control. It ensures the fulfillment of the legitimate expectaions of the individual under the existing laws. It is also an assurance to provide him benefits and protection in case of any violation or encroachment of one's rights.

In order to ascertain human rights in Buddhist's perspective it appears plausible to discuss social justice in Buddhists persective. Social justice is an integrative concept. Therefore, any discussion in the area of social justice is an requires equal stress on all the three aspects of it viz. legal justice, political justice and economic justice.

Traces of Legal Justice in Buddhism

Legal justice is equality in the eyes of law. Every strata of people are subject to the same legal system. Although at the time of Buddha there was no full fledged system of law as today still the spirit of legal justice was udoubtedly inherent in the idea of equality as Buddha was in favour of providing equal platform to each and every individual irrespective of caste, creed and sex. Buddhists viewed all human beings as equal therefore Buddhism is committed to the principle of human equality. Buddha attacked the caste system which divided the society in upper and lower castes thereby depriving the lower castes of certain rights such as the study of Vedas. Repudiating the superiority by birth he declared that:

No Brahman is such by birth
No outcaste is such by birth
An outcaste is such by his deeds
A Brahman is such by his deeds.[8]

Another prime feature of social justice at the age of Buddha featured in the treatment of slaves. Buddha condemned slavery in every from. Buddha may be declared as the pioneer of abolition of slavery. He avers five ways in which a master should serve his employees.[9] These are (a) work should be assigned in proportion to the employee's health, (b) due food and wages be given to them, (c) proper care should be taken in his sickness, (d) specially tasty luxuries should be shared with him and (e) holidays should be given to them at due intervals. Buddha was so much cpmpassionate for the working class that he stressed that they be treated with as much consideration as a member of one's own family.

Again, at the time of Buddha the status of women had considerably gone down. Buddha tried to give a place of honour to women. He did not accept the prevailing *Brahmanic* view that as son was indispensable for a man's salvation. Although in the early years Buddha refused to admit women to the *Sangha* or community of celibates, later on he allowed the order of the nuns to be found. Nevertheless, "he enjoined on a young girl of marriageable age the universal virtue of loyality, respect and obedience to elders, efficiency in house keeping love of peace etc. but nowhere in *Pativrityam* (Loyalty and devotion to husband) the later Brahmanic ideal of surrender and all absorbing devotion to husband was preached.[10] Buddhism recognized the individuality and independence of women and their parity with men. Hence a girl could remain unmarried by becoming a *Bhikkuni.* Even a widow could find respite in renunciation. Buddhism also checked the spread of *purdah* (veil) system which was prevalent in some royal households.

Hence the human rights agenda perfectly fits in the legal aspect of justice in which Buddha advocated justice for every one as caste, creed and sex was immaterial or of no importance for him.

Political Justice

The basis of politicl justice is that politically or economically strong people must not be empowered to violate legal system.

The Buddhist political justice enjoins special responsibility to the king. As the head of state he must adhere to specific code of conduct as he is at the helm of affairs of the state. Buddha felt that the personal moral conduct of the king alongwith his officials would be expressed in the political affairs of the state. Thus the righteous character of the state would help prevail universal righteousness on earth. Hence deliverence through peaceful coexistence would become easily attainable for all. In some passages of the Pali Texts a parallel has been drawn between a Buddha and a monarch as both hold the same esteemed place in the eyes of the people. The two have the same objecive i.e., the well-being of people. Both are also an integral part of the ordinary empirical existence, and the political good and well being is assured through them. The *Kutadans sutta* of the *Digha-Nikaya* explains that the safety of the people and their economoic as well as material prosperity should be of special concern for the state and the government.

Economic Justice

The basis of economic justics is that although people differ in mental and physical capabilities still everyone must have enough.

Economic justice, in Buddhism, is also for all to have enough. Buddha felt that it is not right for some to feast while many starve. Buddhism is the Middle path between luxury and need, hence all people must have sufficient for health and well being and in order to support efforts to fulfill higher needs. Inequlity fuels resentment, anger and ultimately, violence. In order to prevent violence there must be rough equity.

Buddhist economic justice[12] follows from the precept of non-stealing -- 'I will not steal'. Buddha spoke against idividual stealing as he felt that it causes suffering. Similarly stealing, which a powerful group or society practices against less powerful group or society would cause suffering and thus is antithetical to the basic Buddhist principle.

Conclusion

The human rights agenda is about the protection of groups and indivudials from more powerful groups and individuals. Moreover society must hold as its ultimate purpose, the development of the capacities of personality in its members. State makes certain rules so that there may be no hinderance in the fulfilment of this purpose. The law of the state is right with regard to its members and thereupon possesses the quality of rightness or justice. Hence justice tends to secure necessary facilites and condition to greatest possible number of people which help their personality to flourish. This type of secured and guranteed conditions are 'right'.

Although Buddha was a spiritual and moral teacher and reformer, social, economic, political and legal implications do follow from his teachings.[13] He construed every human individual as being vested with certain duties, and the excellence and salvation of individuals depend upon ideal performance of their given duties. In other words, individual rights and dignities are strongly intertwined with corresponding duties. Rather duty is more important than right and the individual is responsible for the society as well as for himself. Therefore one has to play one's role well as one's internal change, personal perfection and spiritual excellence are primary. The order of the monks is classless and casteless spiritual community and the modernistic notion of class or caste conflicts was not familiar to the teachers of the *Sangha.* The foundation of Buddhist path is the understanding of one's moral responsibilities towards other. As I have discussed above Buddhists never entertained the possibility of limiting man to his physical frame and thereupon to one life. Buddha held that each and every man is a potential Buddha therefore every one must enjoy equal rights and freedom. Only in a free society one can pursue one's goal. As the goal is same for everyone, as far as the quest for the highest goal is concerend all are equal. Thus the concept o human rights is quite in tune with Buddhist Philosophy.

NOTES

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SARTRE'S CONCEPTION OF CONSCIOUSNESS

G. VEDAPARAYANA

The paper, in two parts, is an attempt at an exposition of J.P.Sartre's conception of consciousness as he has elucidated in his magnum opus, *Being and Nothingness.* Part one comprises Sartre's conception of consciousness in its various manifestations like non-substantiality, intentionality, self-consciousness, nothingness, temporality, freedom, choice, anguish and unhappiness. In part two, I propose to raise some objections against the fundamental issues of Sartre's ontology, namely, consciousness, nothingness and freedom. The paper concludes with a note that Sartre's ontology of human existence with its tragic conclusions is on the whole a slight to human freedom and intelligence which Sartre himself valued most.

Sartre divides *Being* in general into two regions. viz., the-being-in-itself and the-being-for-itself. The-being-in-itself is unconscious and unfree, whereas the being-for-itself is conscious and free. Before going to expound the being of consciousness and freedom, let us, in brief, elucidate the nature of the-being-in-itself. The-being-in-itself is *what it is :* it is opaque to itself, since it is fully filled of itself; it does not refer to itself as self-consciousness does; it is itself so completely that the perpetual reflection which constitutes the self is dissolved in an identity; it is "a synthesis of itself with itself."[1] The-being-in-itself is full of positivity; it is neither a passivity nor an activity; it has neither 'within' nor 'without; it has nothing secrte; it is solid (*massif*). This being is not subject to temporality; it knows no otherness; it never posits itself as other-than-another-being; "it is itself indefinitely and it exhausts itself in being"[2] The being is neither self-created nor other-created; it cannot be derived either from another being, or from a possibility, or from a necessary law; its being is contingent and superfluous. "Uncreated, without reason for being, without any connection with another being, the-being-in-itself is *de-trop* for eternity."[3]

To Sartre, consciousness (the-being-for itself) is absolutely empty

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within itself; it is a lucid, translucent and non-substantial absolute; it is not a thing but a *cogito* which "has no cntent"[4] - natural or psychological; nothing is given or hidden in it, either the unconscious, the "ego" or the "I". Consciousness is what it appears to be; it is a phenomenon without a noumena; it is a single and 'unitary' being without depth and "exists only to the degree to which it appears"[5]; it does not have a being other than its existence or appearance; in it, existence posits essence and "appearance lays claim to being."6 Consciousness is not a self-enclosed substance but a subjectivity which is ontologically related to the mass of being (the-being-in-itself); consciousness is "consciousness of something"[7]; intentionality or transcendence is its essential character; it is directed toward the outside to reach its object; in other words, consciousness is a revealing-intuition of a transencendent being which it is not and by which it is "born supported"[8]; consciousness thus is logically 'subsequent' to the unconscious mass of being; this is what Sartre calls the ontological proof of consciousness. Consciousness is self-conscious on its pre-reflective level itself; for it, to be and to know are one and the same thing; in being positionally conscious of something, consciousness is non-positionally conscious of being so; it is pre-reflectively conscious of itself as being the knowledge of its object; self-consciousness is "immediate and non-cognitive"[9]; that is, consciousness is ontologically self-conscious devoid of the knower-known dyad. Sartre thus renders consciousness the foundation of knowlege.

Unlike the mass of being, namely, the-being-in-itself, consciousness is a being of nothingness; nothingness lies coild in its heart, like a worm;[10] consciousness is not glued to itself; it is not totally identical with with itself but a detotalized totality; it is being of internal negation in that it esists as a nihilating withdrawal from itself and from its object; positing and denying the object is its constiutive structure. Consciousness 'is' in not being itself and it is its object in not being it; it is never one with itself or with its object; at the point of being made one with itself, consciousness "escapes, separated from itself by nothing, by that nothingness of which it is itself the foundation."[11] Consciousness is not full of itself but a being of lack and a desire for being one with itself as well as with its object; it never 'is; but it is what it is not and is not what it is; it is at a distance from itself, a presence to itself; its being is an elsewhereness and a suspencse to itself. Consciousness, as Sartre puts it, is "a being such that in its being, its being is in question in so for as this being implies a being other than itself.[12] Consciousness is a being of temporality and becoming in time; like the flying arrow it exists at a time in three temporal ektases - the past, the present and the future; it always exists as a project into the future on the background of the past; its present is not, its past is no-more and its future not-yet; in its present, consciousness is separated from its past and future by a breadth of nothingness. This is what Sartre means when he says that consciousness is not what it is (past) and it is what it is not (future)."[13] The most important characteristic of consciousness, according to Sartre, is that it is self-conscious without the "self" or the "ego" as its centre; 'like a bubble, there is 'nothing' at the centre of consciousness, the "I" or the "ego" belongs to the world and appears to consciousness "as a transcendent in itself."[14]

Sartre calls consciousness freedom; to be conscious is to be free and *vice versa*. He uses the trems "consciousness" and "freedom" interchangeably. Consciousness is freedom, since it is not bound by any law; there are no laws of consciousness but only consciousness of them. Consciousness exists as a rupture in the heart of being and as a break in continuity; it is not inclosed in the plenum of being but seprates itself from it by secreting nothingness.[15] Questioning is its essential structure; it interrogates the mass of being and passes judgements on it; it comes into the world with an everlasting 'no' and generates non-being there; it arises by positing as its possibles, the *négatités,* the ultra mundane relities, like destruction, repulsion, anticipation, etc. Consciousness is consciousness through and through; it is neither semi-conscious nor a passivity; it is totally and forever free; nothing can determine consciousness except itself; "determination of itself by itself is its essential characteristic."[16] No factual state, either natural, psychological, economic or political, can determine it; that is, consciousness 'comes' only from itself and can "be limited only by itself."[17] That is why Sartre calls freedom absolute and autonomous. He holds that the self-determination of consciousness is neither causal nor successive; no 'state' of consciousness determines another; one is not the effect or the prolongation of another, for there is a cleavage of an "absolutely impassable"[18] nothingness between them; the preceding moment of consciousness maintains not a causal but an "existential relation"[19] of interpretation with the succeding one. To Sartre, nihilation is totally outside the notion of prior or other determination; the nihilating acts do not determince each other but each one determines itself out of *nothing*; there cannot even be an implication of succession between them, since consciousness, in nihilating itself perpetually, "forgoes being the origin of another phenomenon even of a second nihilation"[20] Sartre, for instance, illustrates that the 'state' of my consciousness of Pierre's absence cannot be considered to be the cause of the subsequent state of my consciousness of sorrow at not finding him; instead, my sorrow is what I have freely chosen and not what the state of Pierre's absence determined it to be.

Freedom is choice; to be free is to choose and *vice versa*; choice is the original project of consciousness; one must be conscious in order to choose and one must choose in order to be conscious. Freedom is not obtaining what one wishes but by oneself to determine oneself to choose. The concern of freedom is not success but "the autonomy of choice."[21] But the choice is protean and it is impossible not to choose. "Not to choose is in fact to choose not to choose."[22]

Freedom is not indeterminism; free actions are not totally without causes, motives and ends; freedom is not action in vacuum; action devoid of causes, motives and ends ceases to be action; freedom means that consciousness detemines the causes, the motives[23] and the ends of its actions, and not the other way round. The cause is a state of affairs which consciousness chooses in this or that particular way; consciousness organizes certain objective facts into causes by transcending them; the cause, therefore, "far from determining action, appears only in and through the project of an action."[24] Similarly, the motive is not a pre-existing psychic entity which incites action by itself. On the contrary, the motive comes into being only throught the end which freedom chooses out of nothing; so, freedom does not have a motivation other than itself; the motivation of freedom is "a motivation of nothingness by nothingness."[25] The causes and motives have no value except the one freedom confers on them. So also the ends are not pre-human and ready-made realities; they are not given but "posited and maintained in their being"[26] by freedom; they do not come to freedom from God, from Nature, or from society; they do not determine the act befor freedom conceives it; consciousness choose or 'creates' them *ex nihilo* and confers upon them a transcendent existence as the ends.

Sartre holds that there is no privileged psychological phenomenon in relation to freedom; all modes of freedom, either will or passion, manifest freedom equally; they all are the ways of consciousness being its own nothingness; all actions are equally free and autonomous; they are the projects toward certain ends. Will is a reflective project in relation to certain ends while emotion is a magical or an irrational project in relation to them; both are the manifestations of freedom; so freedom is not limited to voluntary acts like will alone; freedom is the foundation of its emotions as it is of its volitions; emotional act like fear or flight is as free as the deliberate act like courage; emotion manifests as much freedom as will does. Freedom is protean and thus entails total and overwhelming responsibility; responsibility is the factivity and the reverse side of freedom; it is ubiqutious and without respoite or excuse; freedom, therefore, as Sartre formulates, is "the existence of our will or our passion in so far as this existence is the nihilation of facticity."[27]

Sartre equates freedom with human reality, since man is the only being of consciousness in whom nothingness is made-to-be. "Freedom is precisely the nothingness which is made-to-be at the heart of man and which forces human reality to make itself instead to be."[29] Man is free because: he is not enough; he perpetually wrenches away from himself; he is separted by a nothingness from what he is and from what he will be; he is not himself but a presence to himself; and his presenct being is itself a nothingness in the form of the reflection-reflecting. So man's very existence is freedom; man does not first exist in order to be subsequently free; there is no difference between the being of man and his being free. Man=Freedom. In man, existence precedes and commands essence; the essence is not a given nature but what man posits and makes it to be; man is the incontestable author of his essence; he is the foundation and the maker of it. Man is condemned to choose and exist for ever beyond his essence. "I am condemned to be free. This means that no limits to my freedom can be found except itself."[29]

Freedom is anguishing; it apprehends itself in anguish, since it is the foundation of everything without itself having any founation other than itself; all its conducts are only unjustifiable possibilites; their maning is always in suspencse and to be decided in the future; they have no permanent value; they have the value which I give them; I have to renew my choices constantly and with responsibility; no choice is final or satisfacoty; thus my freedom eats itself away and I am abandoned to a "constantly renewed obligation to remake the self which designates the free-being.[30] But man tries to flee anguish in the bad-faith of grasping himself as being unconscious and unfree; he attempts to overcome anguish through the deterministic attitude of treating himself as having a fixed nature which is productive of his acts; but the flight from anguish is in vain since the flight itself is an act of freedom, choice and responsibility; anguish thus is irremediable and "the veritable immediately given of our freedom."[31] The ultimate project of man is to escape from himself or from freedom by becoming a thing which is unconscious and unfree. Man constantly desires to attain the ideal state of being uncoscious and ufree while being conscious and free. Sartre equates this state with what religions regard as God. So the ideal of man is to become the Man-God. But man's project to realize the ideal is in vain, since the ideal is a contradiction in terms; there can never be a being which is both the-for-itself and the in-itself; the-being-for-itself-in-itself is out of the question; man has to cease to exist in order to attain the ideal; it implies the death of man which is absurd; but man exhausts himself in projecting himself toward the ideal. Sartre, therefore says, "Man is useless passion."[32] But the plight of man is such that he is never free from the desire to be God; this desire constitutes the very being of man; he is being constantly haunted by the illusory ideal without ever being able to realize it. Man's plight is comparable to that of an ass dragging a cart in the hope of reaching the carrot which is tied to a stick which in turn is tied to the shaft of the cart; thus man is condemned to be free and unhappy. "Human reality by anture is an unhappy consciousness with no possibility of surapassing its unhappy state."[33] Man therefore apprehends himself as being there for nothing and his existence as being completely gratutious, *de trop* for eternity. Human existence as a whole is absurd and without any intrinsic meaning; it has only the meaning which we choose to give it; the mening is not necessary but only contingent. Man's birth, death and the whole of his existence is accidental.

II

Sartre is not altogether clear about the conceptions of consciousness, freedom and nothingness. There is ambiguity in his elucidation of them. Firstly, his conception of consciousness as being devoid of content is amiguous. On the one hand Sartre says that consciousness is absolutely empty and translucent; consciousness is a 'pure' being of perpetual reflection which constitutes itself; consciousness is a non-substantial and absolute subjectivity which is a non-being. On the other hand he says that consciousness is a being of transcendence and intentionality; surpassing toward a being other than itself is its constitutive structure; consciousness is consciousness of something; there can be no consciousness which is consciousness of nothing; consciousness of nothing would be an abstraction and ceases to be consciousness. Consciousness is actually born supported by a being other than itself. Sartre is ambivalent in ascribing two mutually exclusive characteristics to consciousness - that it is absolutely empty and that it is of something. It is not clear whether consciousness exists independently of its object or it exists only as an awareness of its object. In trying to stree clear of the pitfalls of both idealism and realism. Sartre has only landed himself in ambiguity in depicting consciousness.

Same is the case with the conception of freedom. Sartre says that freedom is absolute and autonomous. Freedom is the ubiquitous determinism of consciousness by itself. There are no limits to freedom. Nothing can limit it except itself. He at the same time says that freedom is bound and restriceted by facticity. There is no freedom without facticity which is its revers side. Freedom is inconceivable without being resisted by facticity. There is thus ambiguity in Sartre's depiction of freedom. Further, Sartre calls consciousness freedom merely because consciousness, unlike the-being-in-itslef, is a being of choice and intentionality. Consciousness is free not in the sense that it is devoid of unbearbale choice, constant conflict and useless passion. It is free only in the sense that it is, unlike the mass of the unconscious being, a being of perpetual reflection constitutive of the *self* which is - again formulated in ambivalent terms - what it is not and is not what it is. Calling the non-substantial subjectivity of consciousness as freedom just because it is totally opposed to the unreflective and substantial world of objectivity is highly misleading. The Sartrian freedom remains to be a misnomer so long as the subjectivity of consciousness is infested with the unwholesome characteristics like conflict, anguish and unhappiness. True freedom implies a salvation from the sense of sorrow and absurdity. Freedom which indicated the negative side of life can hardly be regarded as freedom.

Sartre is equally unclear about his notion of nothingness, the *raison d'etre* of his concept of freedom. Some times, he pictures nothingness as being the same as consciousness; he says that nothingness is not anything in itself but what is made-to-be by consciousness; it comes inot the world through the being of consciousness. At other times, he depicts the same nothingness as being different from consciousness; he regards it as being a mysterious and an abstract entity which is independent of consciousness; he calls it an impassable empty distance in the heart of consciousness; he also goes to the extent of saying that it is impossible to comprehend the exact nature of nothingness precisely because it is not something but nothing. Thus Sartre is not only ambivalent but also flippant in dealing with the notion of nothingness.This is evident when he says, "If someone ask what this nothingness is which provides a founation for freedom, we shall reply that we cannot describe it since it is not."[34].

Indeed, Sartre has built his ontology on the foundation of this ambiguous conception of nothingness. Ontology, according to Sartre, is elucidating the phenomena by fixing them in clear cut concepts. But, when he expresses his inability to describe nothingness in decisive terms, he seems to have abandoned ontology and unwittingly embraced speculative metaphysics which he in fact wanted to avoid. He seems to have conjured up the phantom of nothingness only to picture human esistence in terms of unhappiness and absurdity. He found it to be a conventient tool of justifying his preconceived tragic finale of life. But the conclusions of Sartre's ontology are inconsequential, since the so-called nothingness is not an actuality but only an abstraction, a figment of imagination.

To conclude, Sartre's intellectual ingenuity and rigour cannot be underestimated. He is undoubtedly one of the most systematic and serious thinkers of our times. His exposition of consciousness and freedom in his give it; the mening is not necessary but only contingent. Man's birth, death and the whole of his existence is accidental.

II

Sartre is not altogether clear about the conceptions of consciousness, freedom and nothingness. There is ambiguity in his elucidation of them. Firstly, his conception of consciousness as being devoid of content is amiguous. On the one hand Sartre says that consciousness is absolutely empty and translucent; consciousness is a 'pure' being of perpetual reflection which constitutes itself; consciousness is a non-substantial and absolute subjectivity which is a non-being. On the other hand he says that consciousness is a being of transcendence and intentionality; surpassing toward a being other than itself is its constitutive structure; consciousness is consciousness of something; there can be no consciousness which is consciousness of nothing; consciousness of nothing would be an abstraction and ceases to be consciousness. Consciousness is actually born supported by a being other than itself. Sartre is ambivalent in ascribing two mutually exclusive characteristics to consciousness - that it is absolutely empty and that it is of something. It is not clear whether consciousness exists independently of its object or it exists only as an awareness of its object. In trying to stree clear of the pitfalls of both idealism and realism. Sartre has only landed himself in ambiguity in depicting consciousness.

Same is the case with the conception of freedom. Sartre says that freedom is absolute and autonomous. Freedom is the ubiquitous determinism of consciousness by itself. There are no limits to freedom. Nothing can limit it except itself. He at the same time says that freedom is bound and restriceted by facticity. There is no freedom without facticity which is its revers side. Freedom is inconceivable without being resisted by facticity. There is thus ambiguity in Sartre's depiction of freedom. Further, Sartre calls consciousness freedom merely because consciousness, unlike the-being-in-itslef, is a being of choice and intentionality. Consciousness is free not in the sense that it is devoid of unbearbale choice, constant conflict and useless passion. It is free only in the sense that it is, unlike the mass of the unconscious being, a being of perpetual reflection constitutive of the *self* which is - again formulated in ambivalent terms - what it is not and is not what it is. Calling the non-substantial subjectivity of consciousness as freedom just because it is totally opposed to the unreflective and substantial world of objectivity is highly misleading. The Sartrian freedom remains to be a misnomer so long as the subjectivity of consciousness is infested with the unwholesome characteristics like conflict, anguish and unhappiness. True freedom implies a salvation from the sense of sorrow and absurdity. Freedom which indicated the negative side of life can hardly be regarded as freedom.

Sartre is equally unclear about his notion of nothingness, the *raison d'etre* of his concept of freedom. Some times, he pictures nothingness as being the same as consciousness; he says that nothingness is not anything in itself but what is made-to-be by consciousness; it comes inot the world through the being of consciousness. At other times, he depicts the same nothingness as being different from consciousness; he regards it as being a mysterious and an abstract entity which is independent of consciousness; he calls it an impassable empty distance in the heart of consciousness; he also goes to the extent of saying that it is impossible to comprehend the exact nature of nothingness precisely because it is not something but nothing. Thus Sartre is not only ambivalent but also flippant in dealing with the notion of nothingness.This is evident when he says, "If someone ask what this nothingness is which provides a founation for freedom, we shall reply that we cannot describe it since it is not."[34].

Indeed, Sartre has built his ontology on the foundation of this ambiguous conception of nothingness. Ontology, according to Sartre, is elucidating the phenomena by fixing them in clear cut concepts. But, when he expresses his inability to describe nothingness in decisive terms, he seems to have abandoned ontology and unwittingly embraced speculative metaphysics which he in fact wanted to avoid. He seems to have conjured up the phantom of nothingness only to picture human esistence in terms of unhappiness and absurdity. He found it to be a conventient tool of justifying his preconceived tragic finale of life. But the conclusions of Sartre's ontology are inconsequential, since the so-called nothingness is not an actuality but only an abstraction, a figment of imagination.

To conclude, Sartre's intellectual ingenuity and rigour cannot be underestimated. He is undoubtedly one of the most systematic and serious thinkers of our times. His exposition of consciousness and freedom in his

Being and Nothingness is not without significance. It definitely helps us live our lives a little better and more effectively. But it fails to throw sufficient light on human predicament and give a holistic and meaningful picture of life which is most expected of a philosopher of human existence, especially of Sartre's calibre. Being a thorogh profeesional, Sartre has tried to give solutions to philosophical problems rather than to the problem of life, namely, sorrow. He has concentrated more on building a consistent system of human existence than on discovering its ultimate truth. It may therefore be said that Sartre's ontology is a slight to human freedom and intellingence which Sartre himself valued most. The declaration that man is a useless passion stands a testimony to the failure of human genius in the hands of Sartre. It is ironical that the philosopher of autonomous and ubiquitous choice, chose not to liberate but to condemn humanity to meaninglessness and sorrow.

NOTES

1. Sartre, Jean-Paul, *Being and Nothingness* - A Phenomenological Essay on Ontology, Trans. Hazel E. Bames. 9th Printing, Washington Square Press, New York, 1977, p.28.
2. *Ibid*,. p. 29.
3. *Ibid*,.
4. *Ibid*,. p. 11.
5. *Ibid*,. p. 17.
6. *Ibid*,. p. 24.
7. *Ibid*,. p. 11.
8. *Ibid*,. p. 23.
9. *Ibid*,. p. 12.
10. *Ibid*,. p. 56.
11. *Ibid*,. p. 143.
12. *Ibid*,. p. 24.
13. *Ibid*,. p. 179.
14. *Ibid*,. p. 156.
15. Nothingness is the original condition of the attitude of questioning. It is the foundation for all philosophical and scientific inquiry, says Sartre.
16. Sartre; *op.cit*. p. 16.
17. *Ibid*,.

18. *Ibid*,. p. 64.
19. *Ibid*,.
20. *Ibid*,. p. 63.
21. *Ibid*,. p. 622.
22. *Ibid*,. p. 475.
23. The objective cause is correlative to the subjective motive as the non-thetic self-consciousness is to the thetic consciousness of the object. A motive is the cause discovered by consciousness for acting in a certain way. Just as consciousness of something is self-consciousness, the motive is the apprehension of the cause in self-consciousness.
24. Sartre; *op.cit*. p. 578.
25. *Ibid*,. p. 63.
26. *Ibid*,. p. 568.
27. *Ibid*,. p. 573.
28. *Ibid*,. p. 568.
29. *Ibid*,. p. 567.
30. *Ibid*,. p. 72.
31. *Ibid*,. p. 80.
32. *Ibid*,. p. 784.
33. *Ibid*,. p. 140.
34. *Ibid*,. p. 71.

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BOOK REVIEW

Rekha Jhanji. ***Human Condition in the Mahābhārata*** *:* Indian Institute of Advanced Study, Shimla, 1995. 75 pp. Rs. 80.

Rekha Jhanji, who is well-known for her writings on aesthetics, now turns her philosophical attention to the *Mahābhārata*, and the result is this intriguing slim volume. Of course the great Indian epic can be studied in a myriad of ways, for instance, as a sourcebook for historical or sociological investigations. But Jhanji is not at all concerned or worried about the historical existence (or non-existence) of the characters and the character of the society they were part of. Her approach differs in that her chief interest in the text "stems from [her] desire to look upon it as a human document representing certain persons inhabiting a possible world" (p. 4). Thus, Jhanji seems to seek two-fold help from the philosophical term 'possible world': firstly, to keep her mode of dealing with the text distinct from those that view it as being about a certain historical epoch; and secondly, to request the reader to accept her literary-aesthetic interpretations of the text. She says: "The methodology of my study could be placed somewhere between the realms of literary criticism and philosophy" (p. 4). Furthermore, as the blurb tells us, the three lectures that constitute the book consider the epic from "an existentialist perspective". In Jhanji's view, although the *Mahābhārata* is a story of particular persons inhabiting a particular world, it exemplifies the universal human condition, especially "[the] interplay between human freedom and the overwhelming power of the unknown" (p. 5). Accordingly, Jhanji selects and focuses upon three aspects of the human condition as her themes (and as titles of chapters): being human, interpersonal relationships, and the purpose of life. She attempts to explore various and varied ways in which these aspects of the human condition have been portrayed and commented upon in the *Mahābhārata*. In short, Jhanji's proposed manner of reading the *Mahābhārata* is literary-aesthetic criticism steeped in an existentialist attitude.

However, it is not satisfactorily clear how Jhanji's literary-aesthetic approach with its existentialist flavour differs from one of the two common ways of looking at the *Mahābhārata*. The Mahabharata is normally seen either as a religious text that mainly consists of stories of gods or semi-divine human beings directly or indirectly blessed by god, or as a work of literature that is replete with complex, colourful characters and their fantastic yet fundamentally human actions and interactions. The latter kind of reading - the literary one - naturally takes into account the light the text sheds on what it is to be a human being, on the nature of human relationships and on the goals of life or absence of them. It is not that the existentialist bent of mind alone can detect and discuss such themes. But Jhanji does not seem to try hard to define and display the specificity of her approach. For instance, some of her remarks in Introduction are astonishingly simplistic. She says at a point: " … unlike most epics, the *Mahābhārata* has neither a single hero nor a single author. Consequently it cannot be treated like a literary text in the usual sense of the term" (pp. 1-2). Well, Ramayana, the other great Indian epic, does not have a single hero, even if Ram's life-story can be said to form its backbone. And, the *singularity* of hero or author does not make a text a literary work, does it? All the three chapters unfortunately turn out to be hackneyed hymns to the well-recognized richness of the great epic.

The first chapter, "Being Human", investigates the epic's view of the nature of human beings. The inaugural statement is quite promising: "Any attempt at an understanding of man would have to start by spelling out *what really is meant by being human* in this vast cosmic conglomeration" (p. 7, my italics). But Jhanji finds great satisfaction in telling us that the "predominant cosmological theory that reverberates in the Śāntiparva is quite similar to that found in the Sānkhya texts" (p. 8). Now, even though we grant that any talk about human beings will have "an implicit cosmological theory" (p. 7), the existentialist interpreter's job must not be confined to uncovering, if uncovering it is, *what* particular theory is implicit in the epic. The interpreter should at least engage in showing the peculiar manner in which that theory has been brought into play in the text. It is extremely disappointing when instead of an attempt at

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The second chapter, "Interpersonal Relationships", is not really about interpersonal relationships, if by an 'interpersonal relationship' we mean the relationship between two human individuals. For the whole chapter is devoted to the description of the caste and varna *system* and its philosophical-religious foundations. Nowhere in the chapter a particular human relationship, say between Bhima and Yudhishthir, as founded upon blood-ties, love or common pursuits, is discussed in depth. Again, Jhanji only makes explicit the social *background* against which human beings form and participate in relationships in the world of *Mahābhārata* but does not tackle the announced theme. A curious statement occurs at the start of this chapter: " … all creation forms a grand structure with human beings at its apex" (p. 24). This appears to be at odds with the claim in the first chapter where we read: "In Indian thought … a human being is only a sophisticated combination of the same five elements which constitute the rest of nature" (p. 7). If this is intended to contrast Indian thought with the Western thought, which regards man as the centre of the universe, then to put man at the 'apex' is going to be a very awkward move. One also notices a sudden shift in approach on pages 29 and 30 where Jhanji views the *Mahābhārata* as a historical docudrama. ("It does seem that polyandry was getting less and less popular in those times" (p. 29).) And Jhanji does not fail to sprinkle the chapter with overworked clichés such as whereas the West sees pursuit of knowledge as an independent activity, Indian tradition sees knowledge as intimately linked to purushārthās (pp. 26-27), or the secondary status accorded to women (pp. 29-32).

The third chapter, "The Purpose of Life", appears better than the earlier ones. Here we meet Heidegger, one of the most influential existentialists who rejected the label. It is not that mentioning an existentialist thinker is intrinsically important but it is one of the very few places in this book where Jhanji's perspective gets fleshed out to some extent. She compares the *Mahābhārata's* treatment of truth and liberation as the two sides of the same coin with the connection that Heidegger tries to re-establish between truth and Being. But Jhanji is over-eager to remark that "Perhaps Heidegger drew on Eastern philosophies for arriving at this conception of truth" (p. 49). No reasons are given; no references offered. One wonders whether this passing remark is a sign of a certain form of unhealthy revivalism which is satisfied in proclaiming 'Look at the *Mahabharata*: *we* had everything in the past'. And it is quite odd that whereas existentialism as it flourished in the West in the twentieth century in particular views man's life as an essentially goalless, foundationless striving, Jhanji, as an existentialist interpreter, expends her third chapter on giving details of a neat organisation of life according to succeeding stages and separate goals.

Thus, whatever the stated intentions, Jhanji actually does two things. Firstly, she tries to show *that* the three aspects of the human condition have been dealt with in the *Mahābhāratá*. Secondly, she tries to show that how certain characters, situations and comments in the text *exemplify* certain philosophical concepts and theories. As for the first method, *how* those aspects are dealt with is crucial but we get much less of it. And as regards the second method, the philosophical worth of a literary work does not reside in the fact that it exemplifies certain philosophical theories but in how it transcends them, 'overcomes' them and presents something that is not capturable by them. Jhanji reduces the grand fictional narrative to a purposive, didactic and 'single-minded' allegory.

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Maybe Jhanji has for the time being only provided us with the background, the setting and so we can hope for the actual execution of the intended existentialist method of interpretation. So the attempt is praiseworthy and the sequel worth waiting for.

There is at the end a 12-page long glossary of Sanskrit terms and proper names which many readers who are not familiar with Indian culture and languages will find extremely useful.

PRASHANT BAGAD

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